

# GUIDE TO PORT ENTRY

PORT PLANS  
AND MOORING DIAGRAMS

*Produced by  
Colin Pielow*

SHIPPING GUIDES LTD.







# **GUIDE TO PORT ENTRY**

**1979-80**

## **PORT PLANS AND MOORING DIAGRAMS**



**SHIPPING GUIDES LTD**  
NAUTICAL ADVISERS AND PUBLISHERS

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# WARNING

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*At certain ports, items of navigational routeings and aids have been included as a means of general guidance only. Shipmasters should have in mind that full and due reference MUST ALWAYS be made to corrected charts of the area, to the appropriate Notices to Mariners, and all or any other navigational notices, warnings or amendments issued by proper Authorities and/or navigational aid services.*

The sketch maps are for general assistance and must not be used for navigational purposes.

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SHIPPING GUIDES LIMITED,  
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All communications will be acknowledged and will be most useful, since it is only by this means that the Guide will remain of great value to the user, and will be up to date and thoroughly professional in content.

**PLANS, DIAGRAMS, DRAWINGS AND SKETCHES:** As you will note, this 1979/80 edition of "Guide to Port Entry" contains over one thousand three hundred port plans and mooring diagrams that have been reproduced from plans and drawings very kindly sent to us by numerous Port Authorities, Agents and shipboard personnel. We hope this plan volume will prove interesting and useful.

Presently however, the plan volume is to an extent incomplete, since there are ports and mooring facilities for which we have not yet received the necessary plans for reproduction purposes. We are anxious to secure plans, diagrams, drawings or sketches of ports and facilities not presently shown in this plan volume, and therefore request that Port Authorities and/or Agents at the places concerned be kind enough to pass us this data together with the necessary permission for reproduction. We would also be very grateful if ship's officers calling at ports not already covered in this plan volume could find it possible to provide us with diagrams or sketches of the facilities which would be suitable for reproduction in our later editions and/or which might be re-drawn as required by our own art department prior to reproduction.



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## LATE PLANS

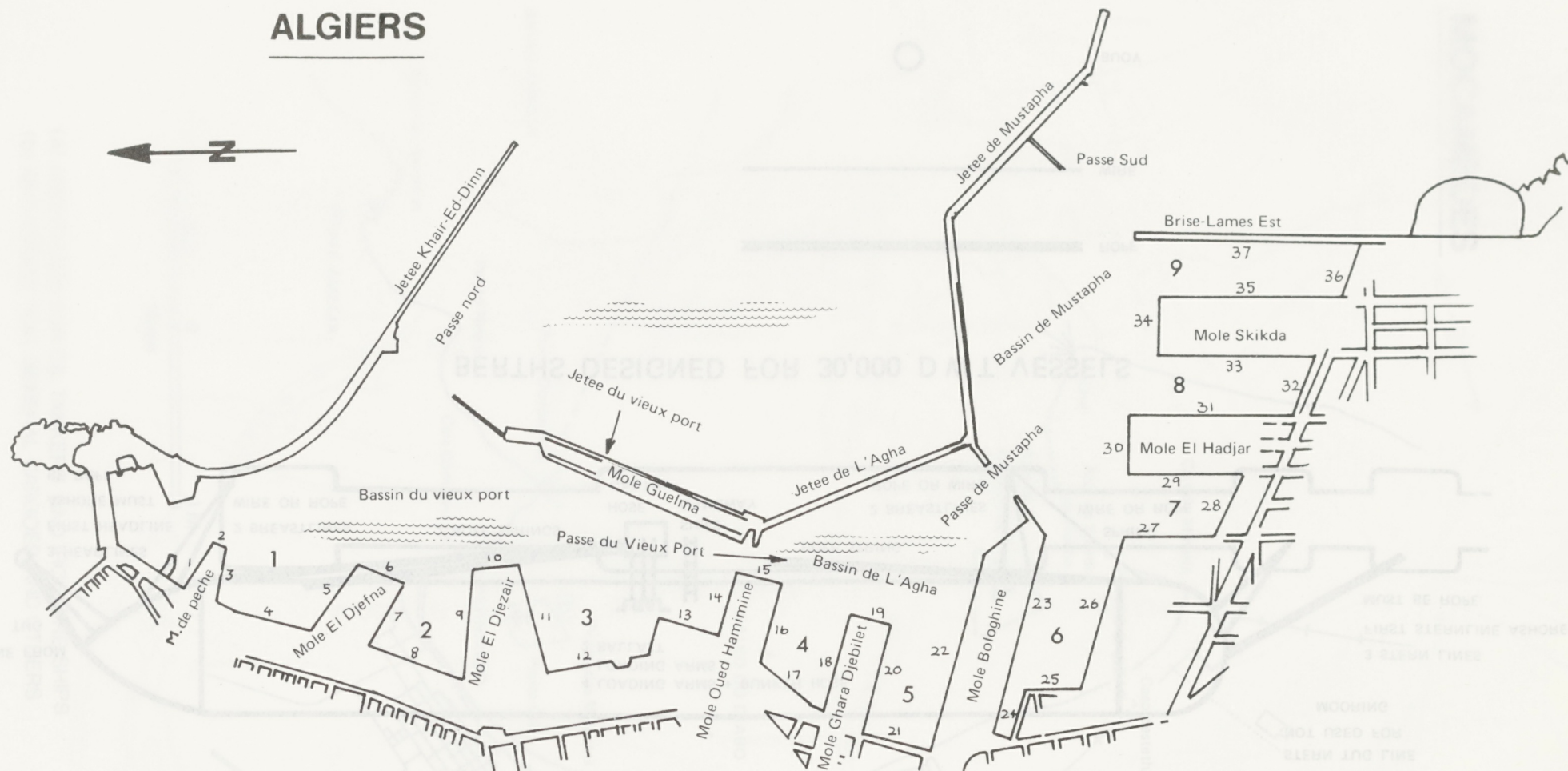
CANADA	Caraquet	INDIA	Paradip
	Shippegan	KOREA (SOUTH)	Mukho
CHILE	Iquique	MEXICO	San Carlos
	San Vicente	PANAMA	Almirante
CONGO	Djeno		Vacamonte
FRANCE	Fecamp	PORTUGAL	Sines
IRAN	Lavan Island	SAUDI ARABIA	Ras Tanura/Ju'Aymah
IRELAND	Castletown Bere	TURKEY	Golovasi
ITALY	Ancona	U.S.A.	Everett







# ALGIERS

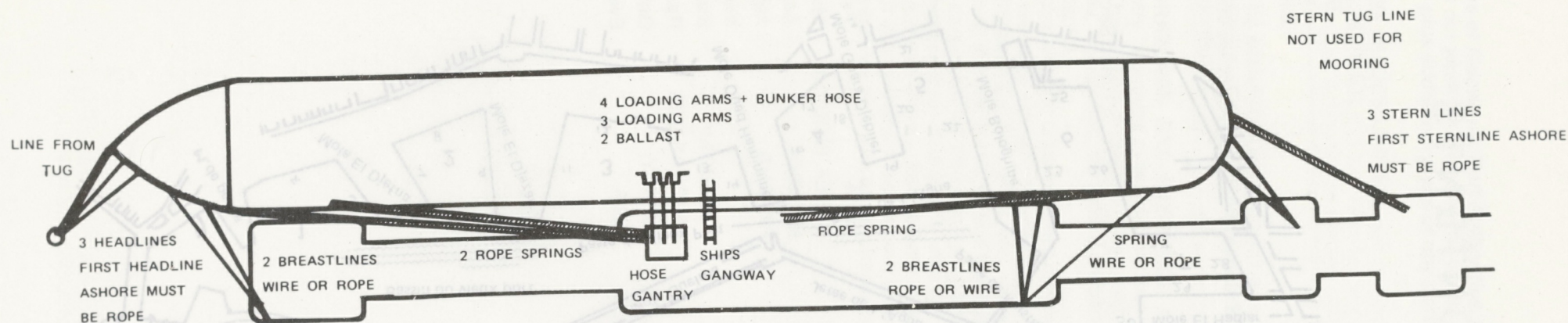


SCALE

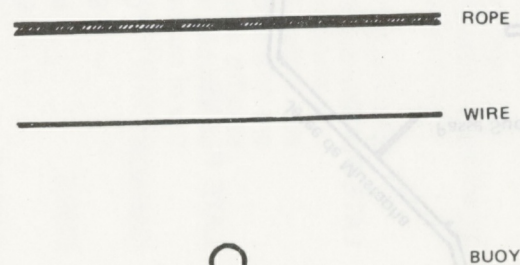
100 0 100 200 300 400 500m



# MOORING ARRANGEMENT BOUGIE

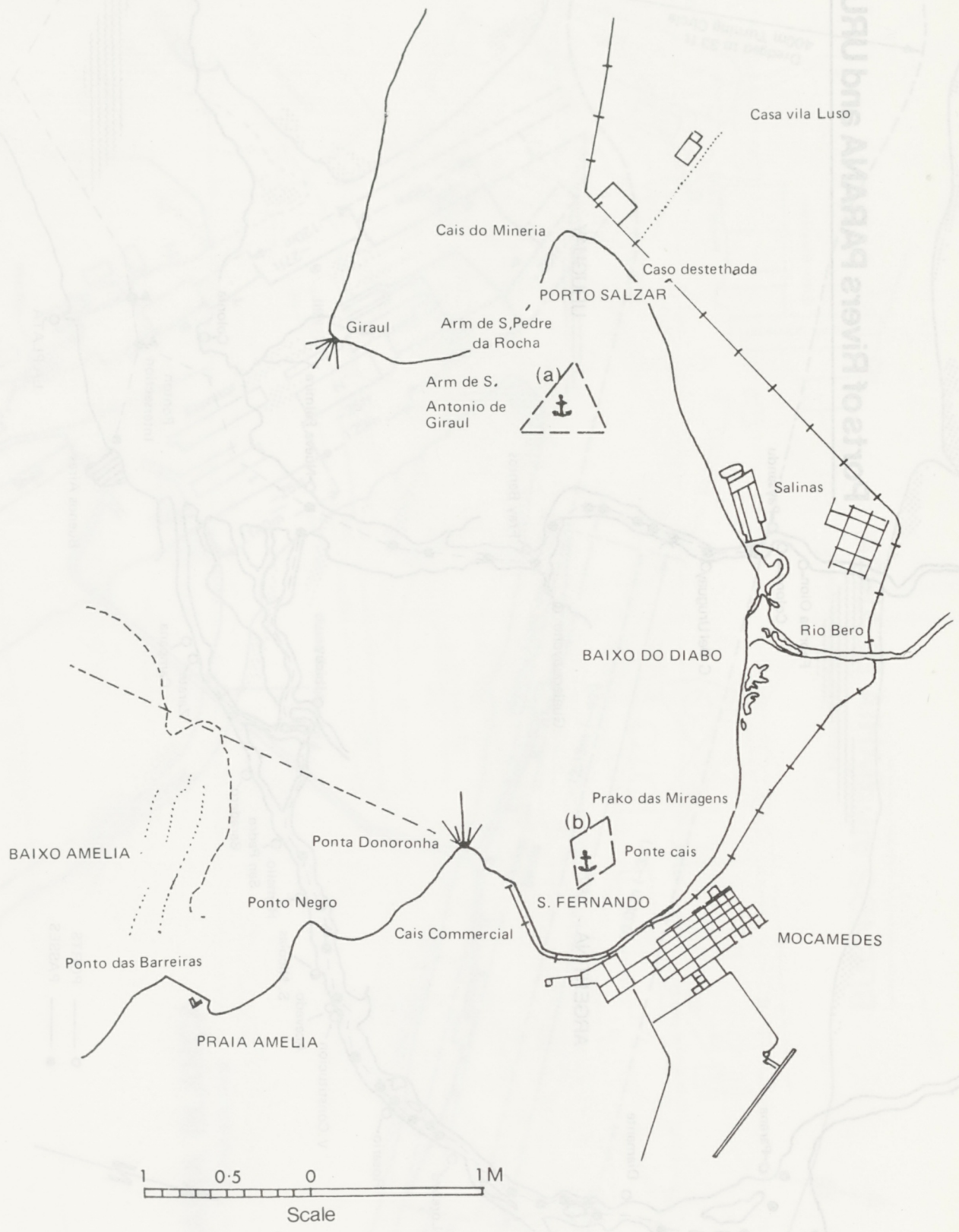


BERTHS DESIGNED FOR 30,000 DWT VESSELS





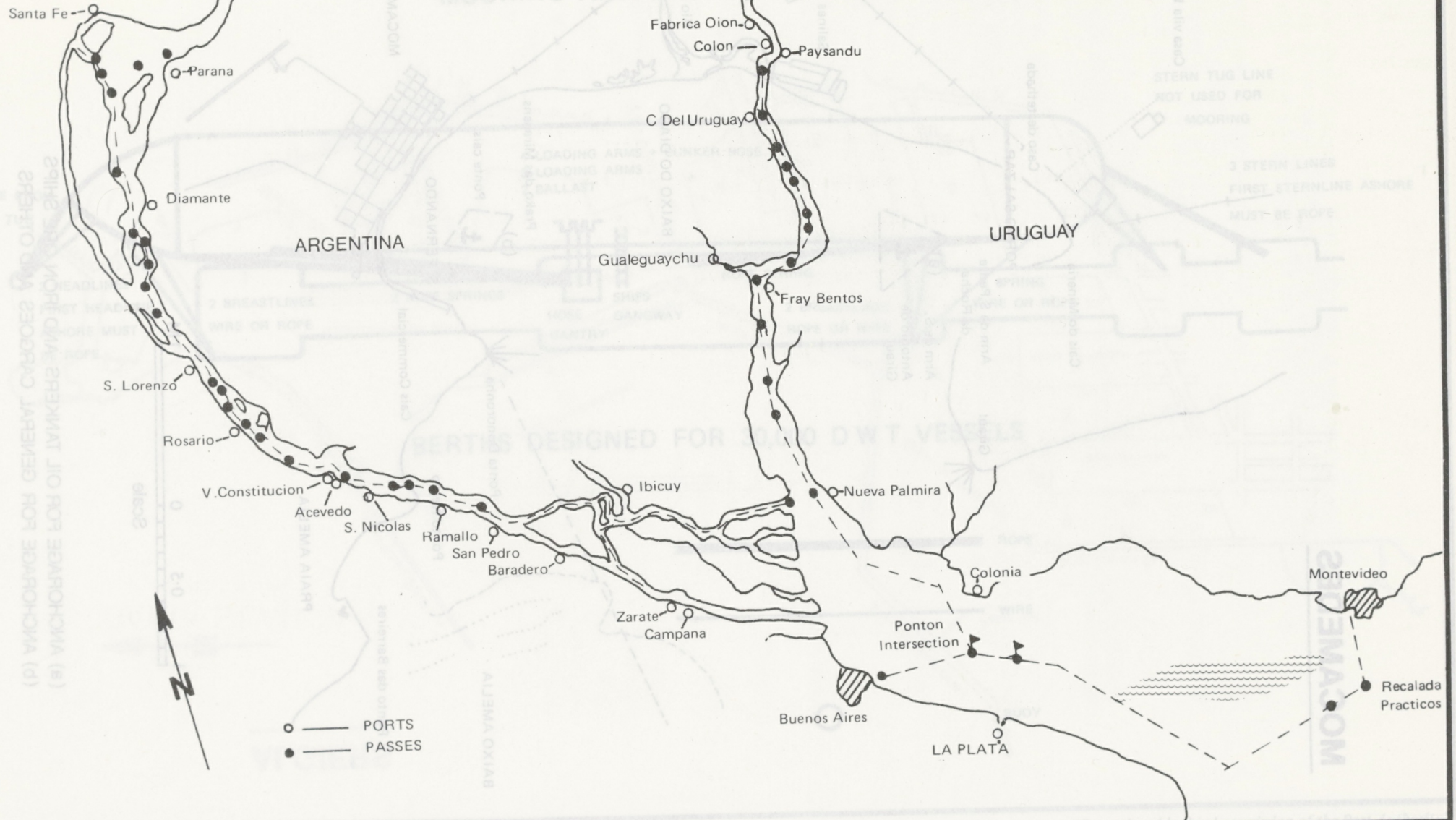
MOCAMEDES



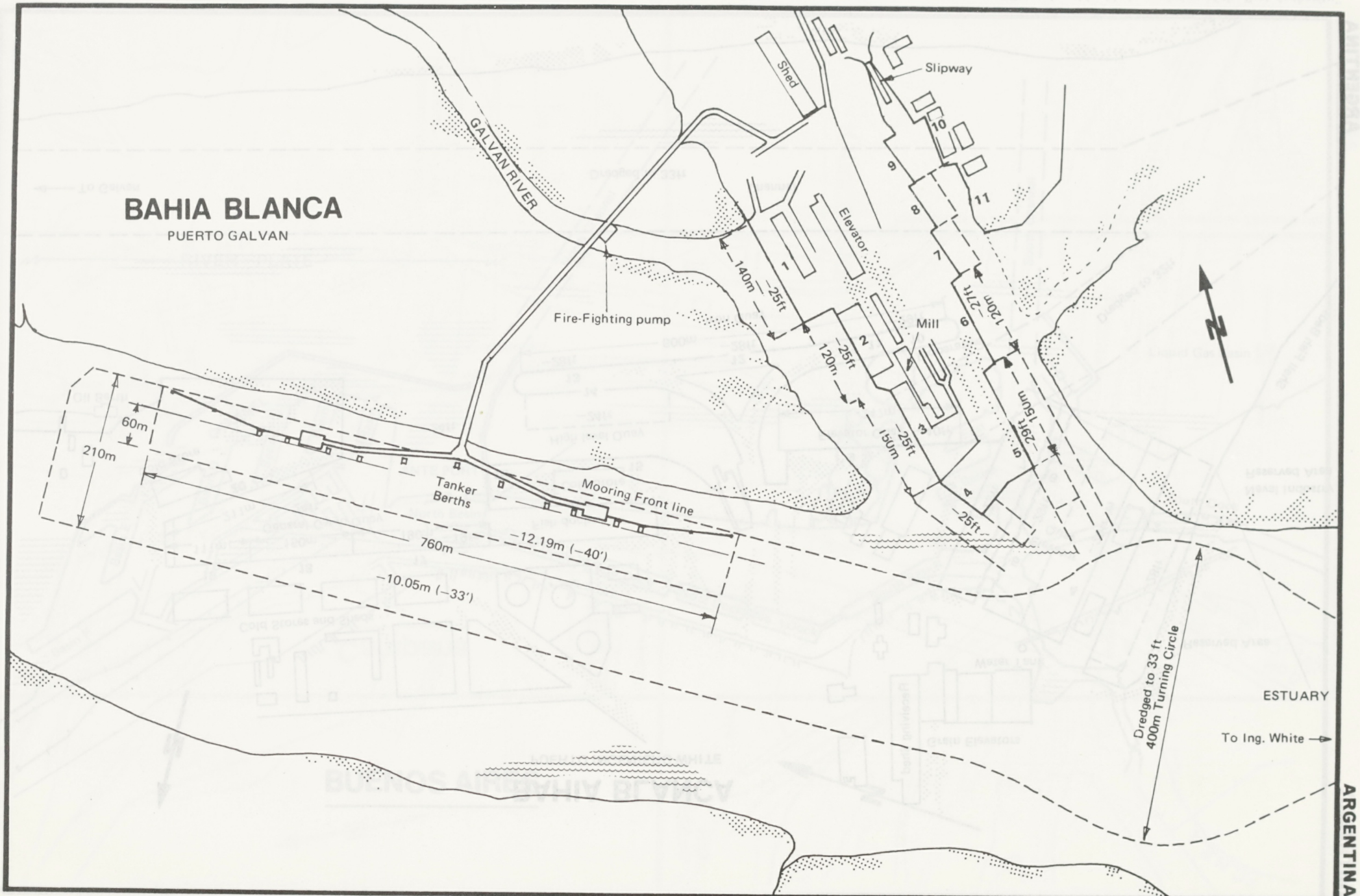
(a) ANCHORAGE FOR OIL TANKERS AND IRON ORE SHIPS  
(b) ANCHORAGE FOR GENERAL CARGOES AND OTHERS



# Ports of Rivers PARANA and URUGUAY



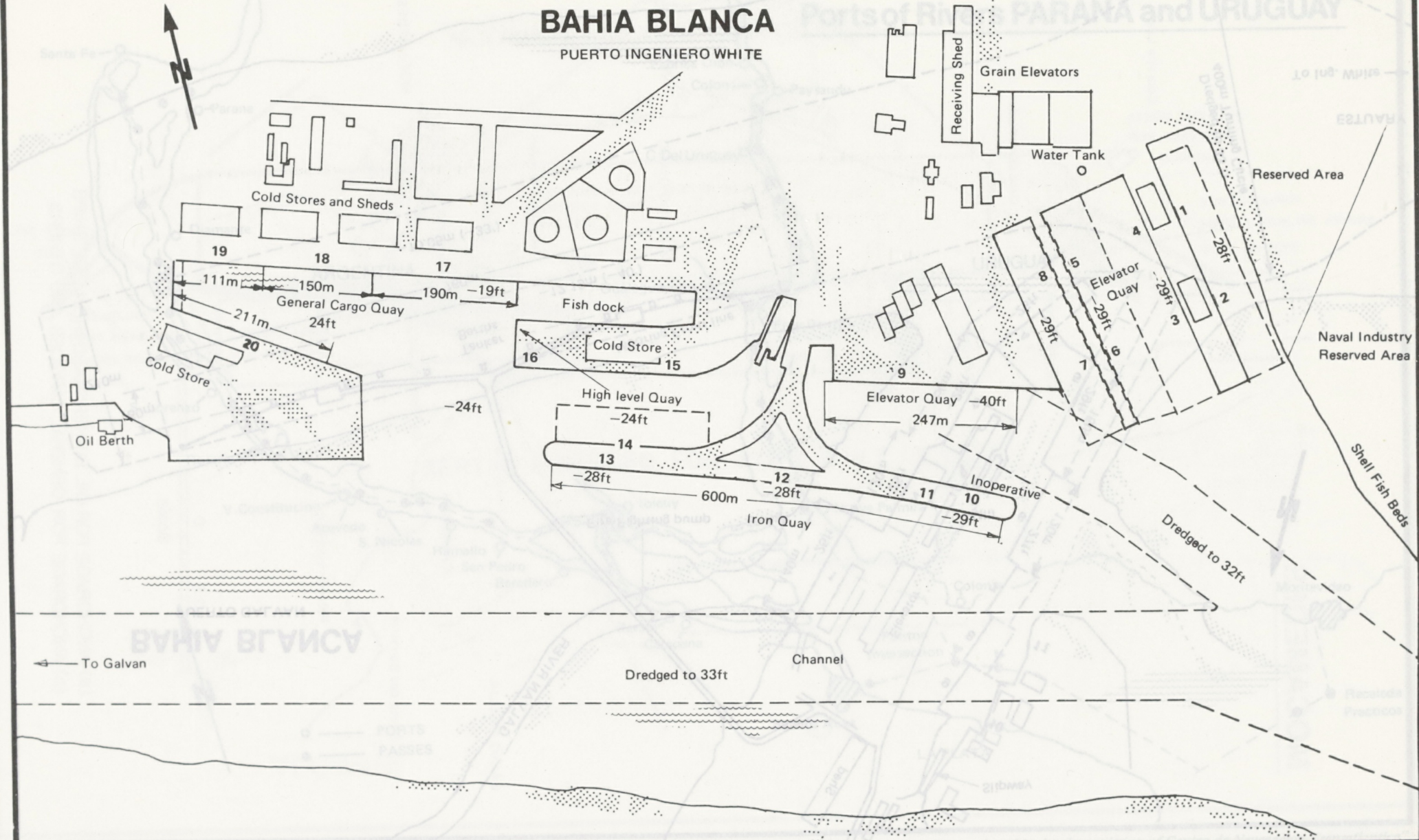




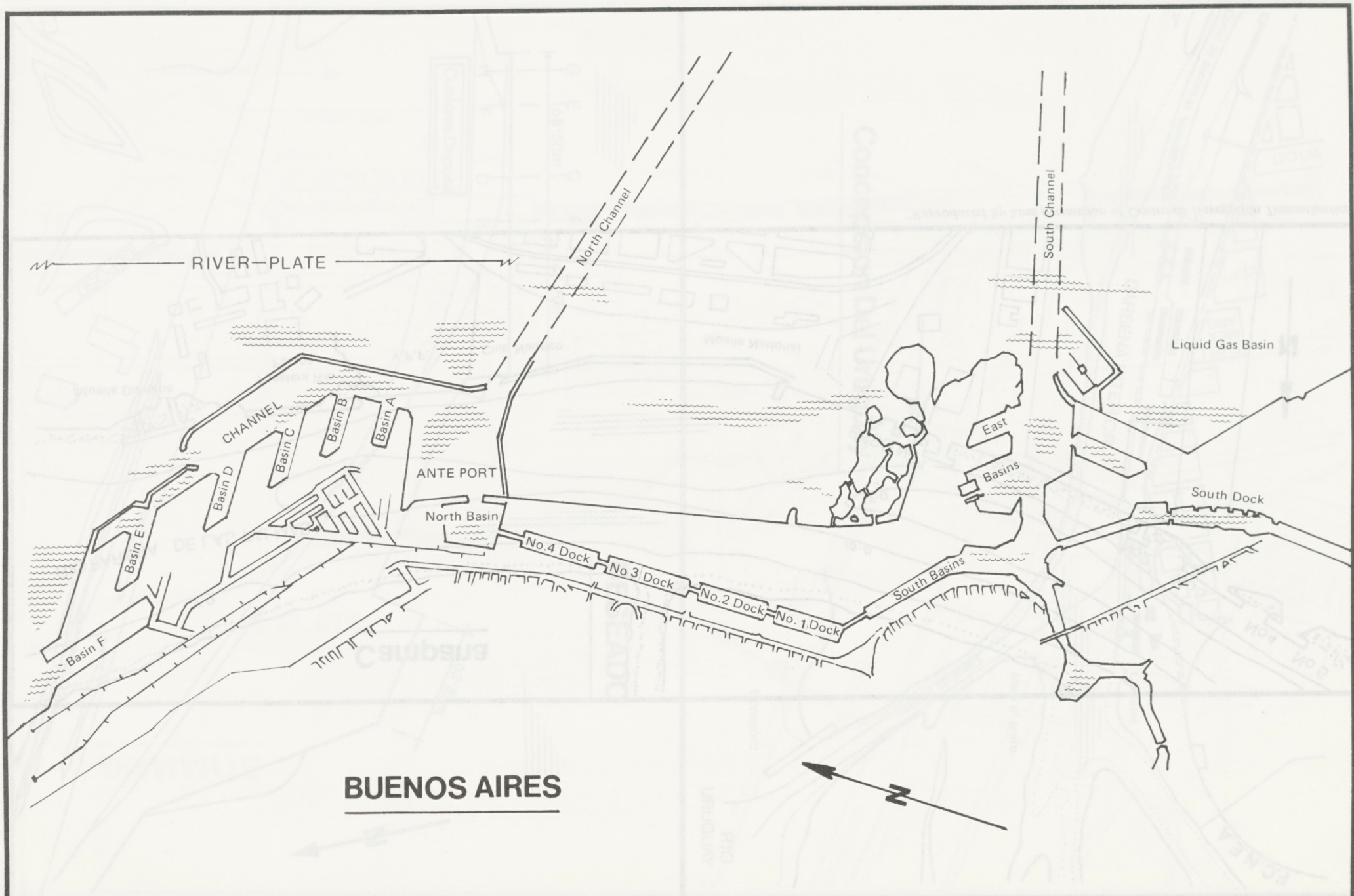


# BAHIA BLANCA

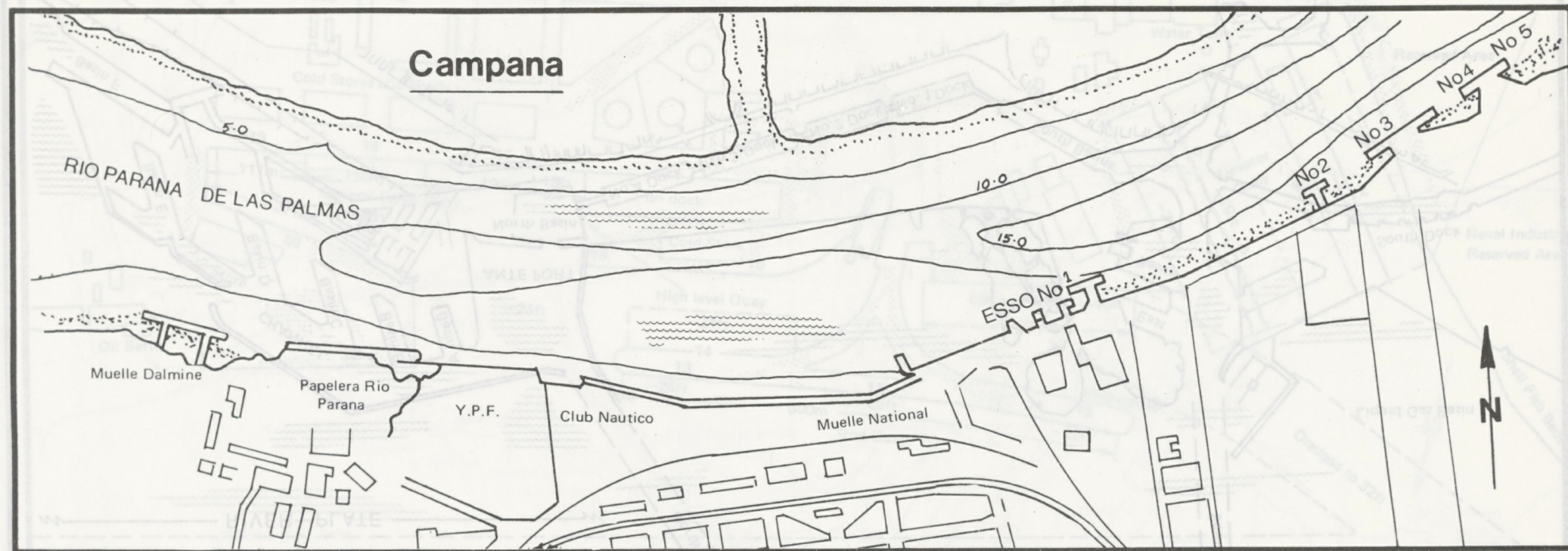
PUERTO INGENIERO WHITE











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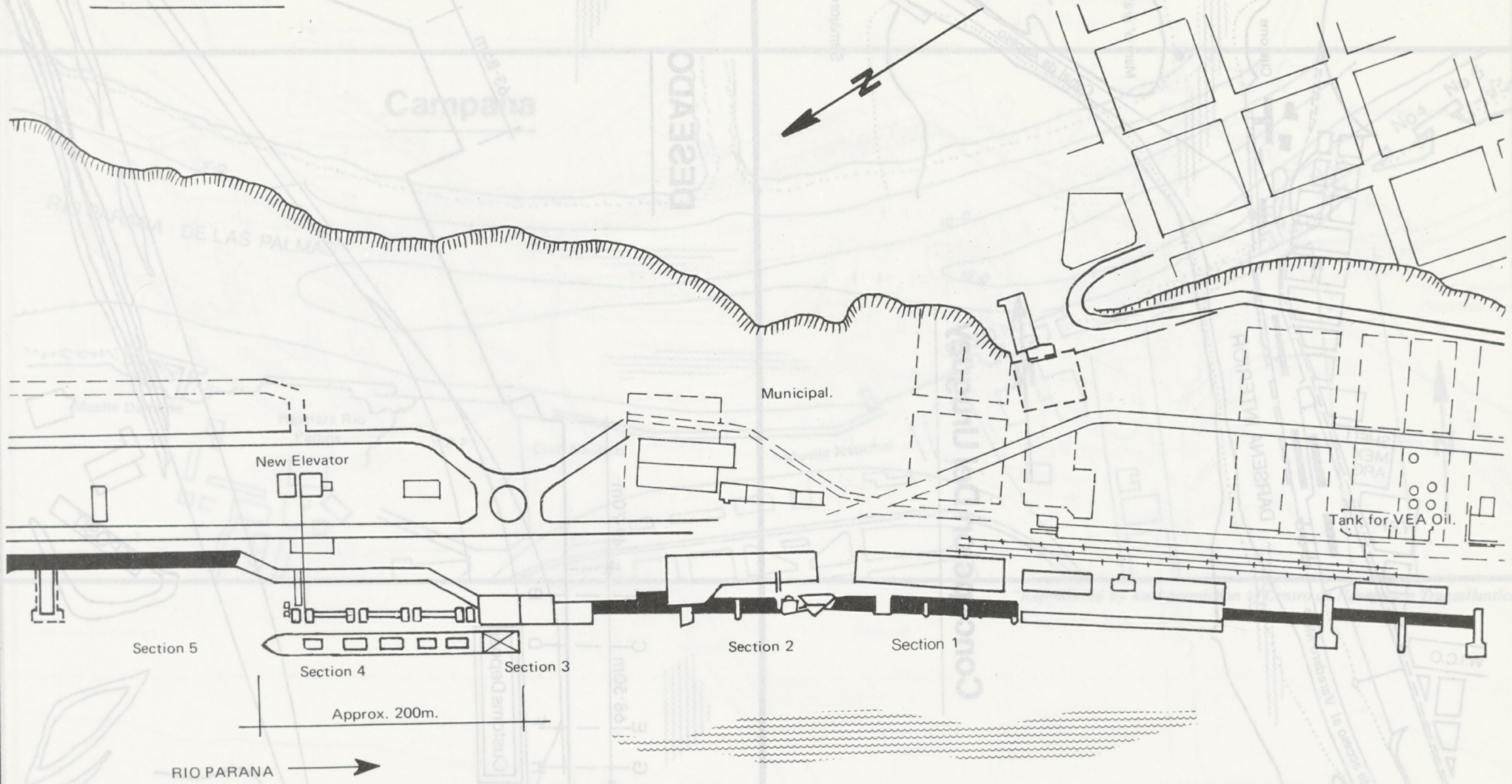


**Concepcion Del Uruguay**

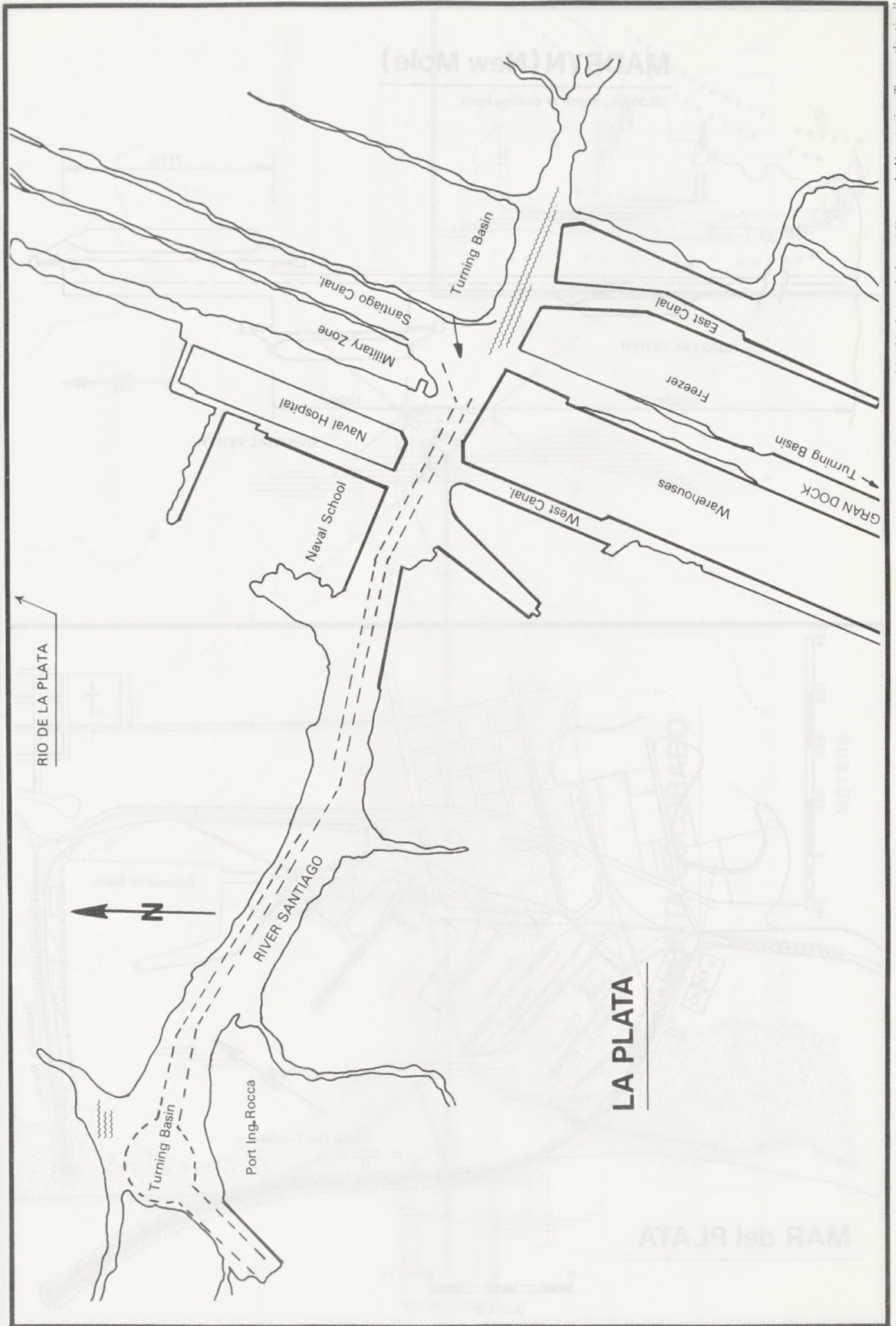




# DIAMANTE





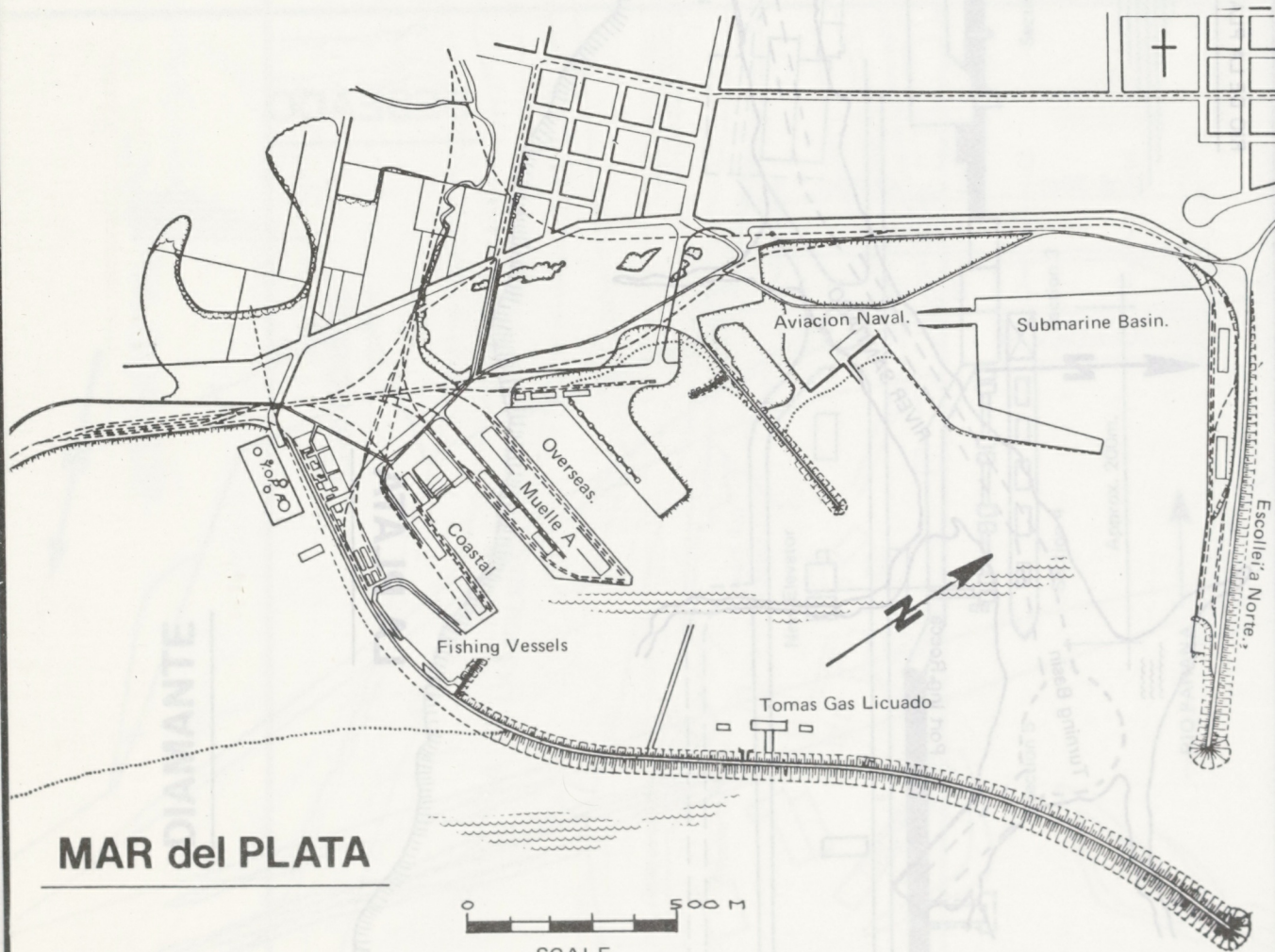
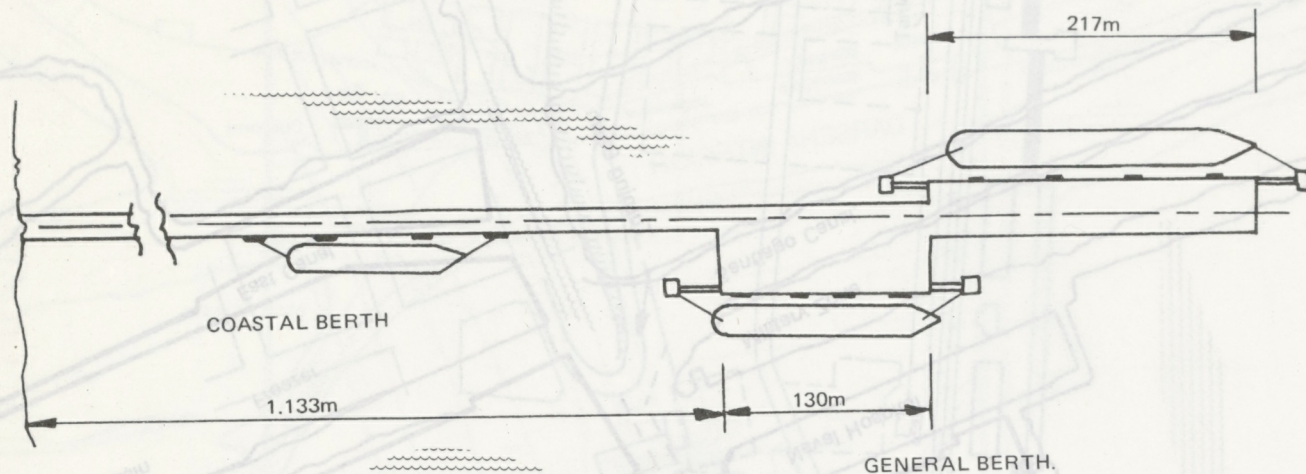


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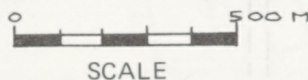


# MADRYN (New Mole)

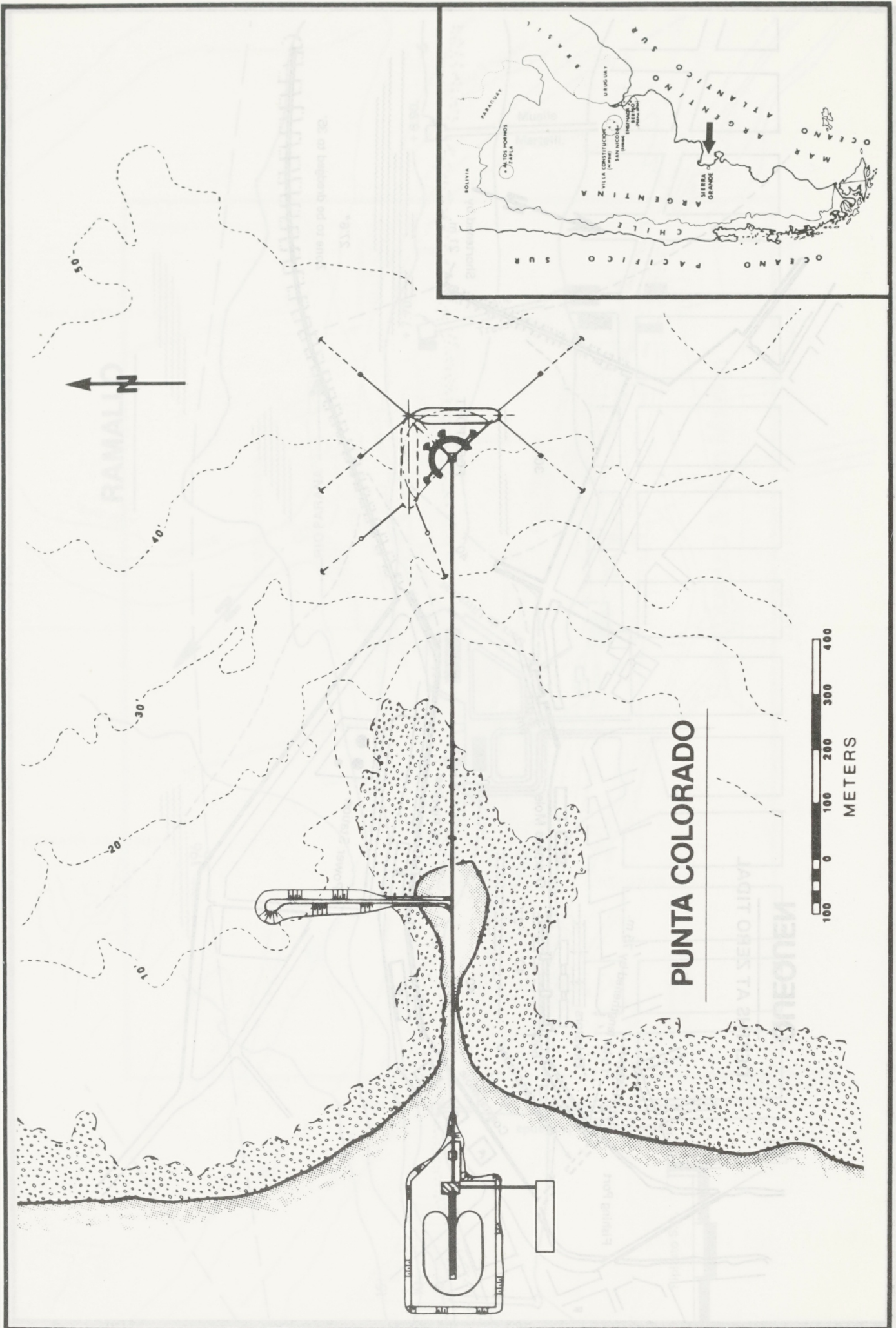
2500 m. North of existing mole.



MAR del PLATA

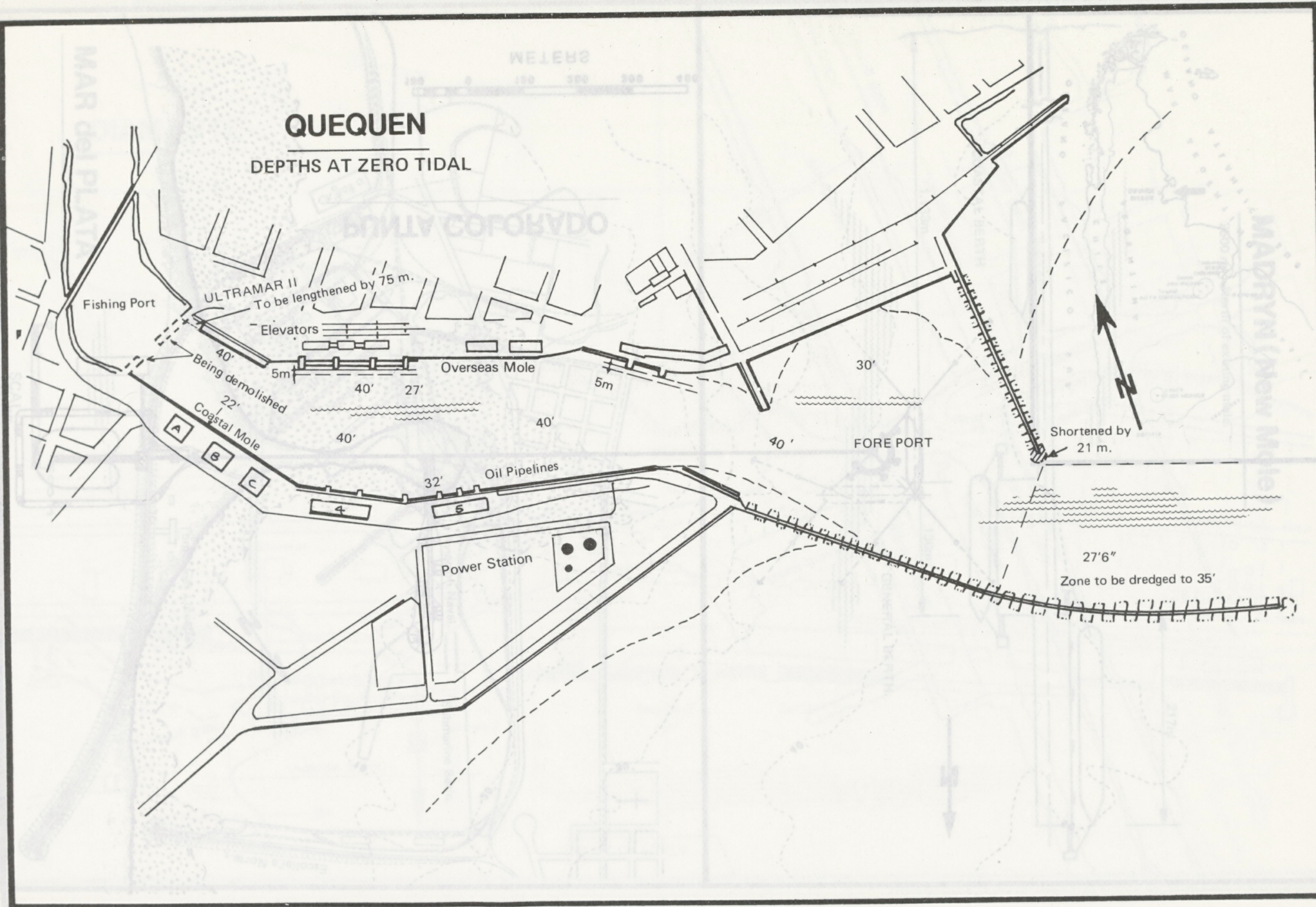






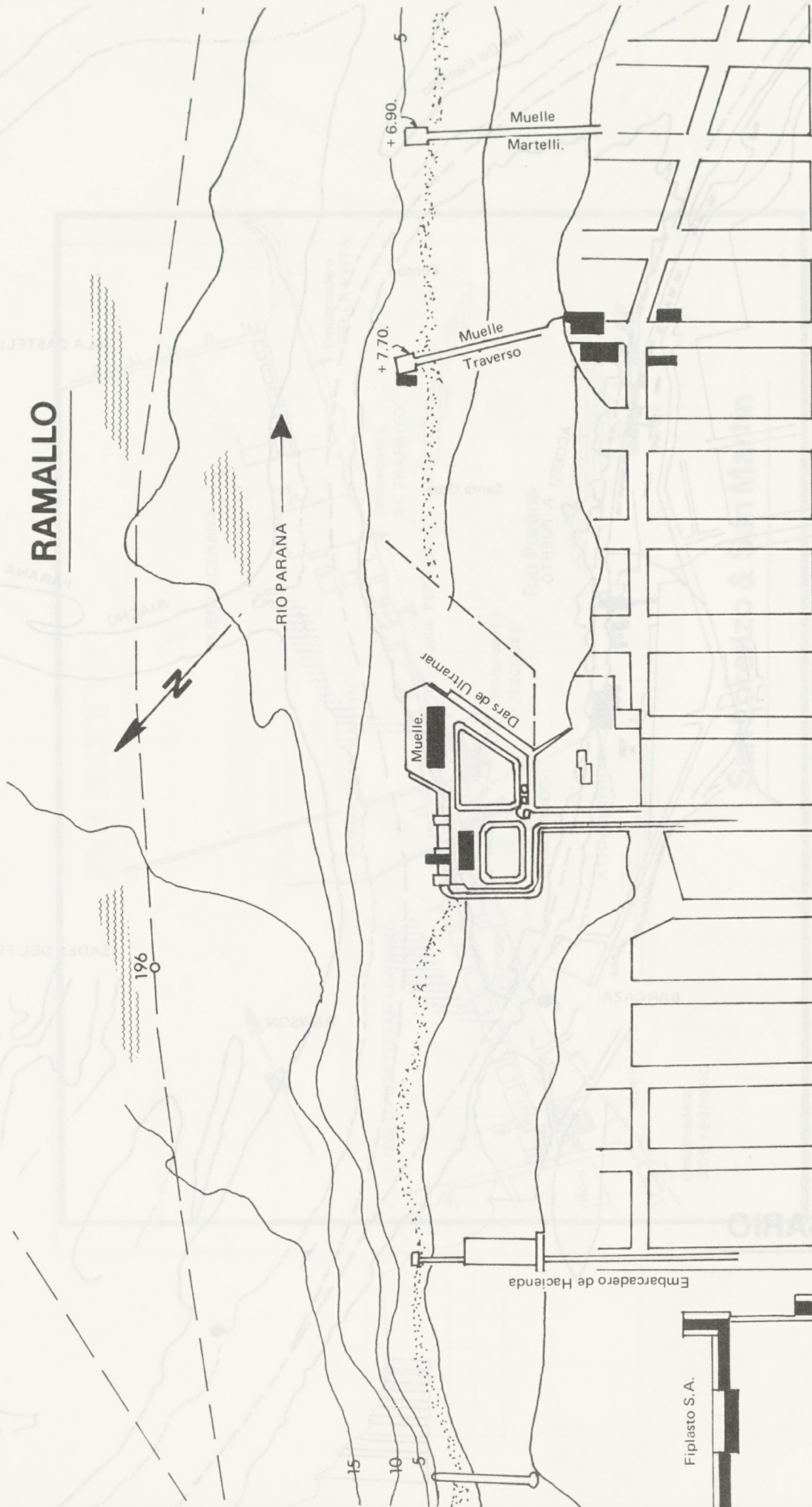
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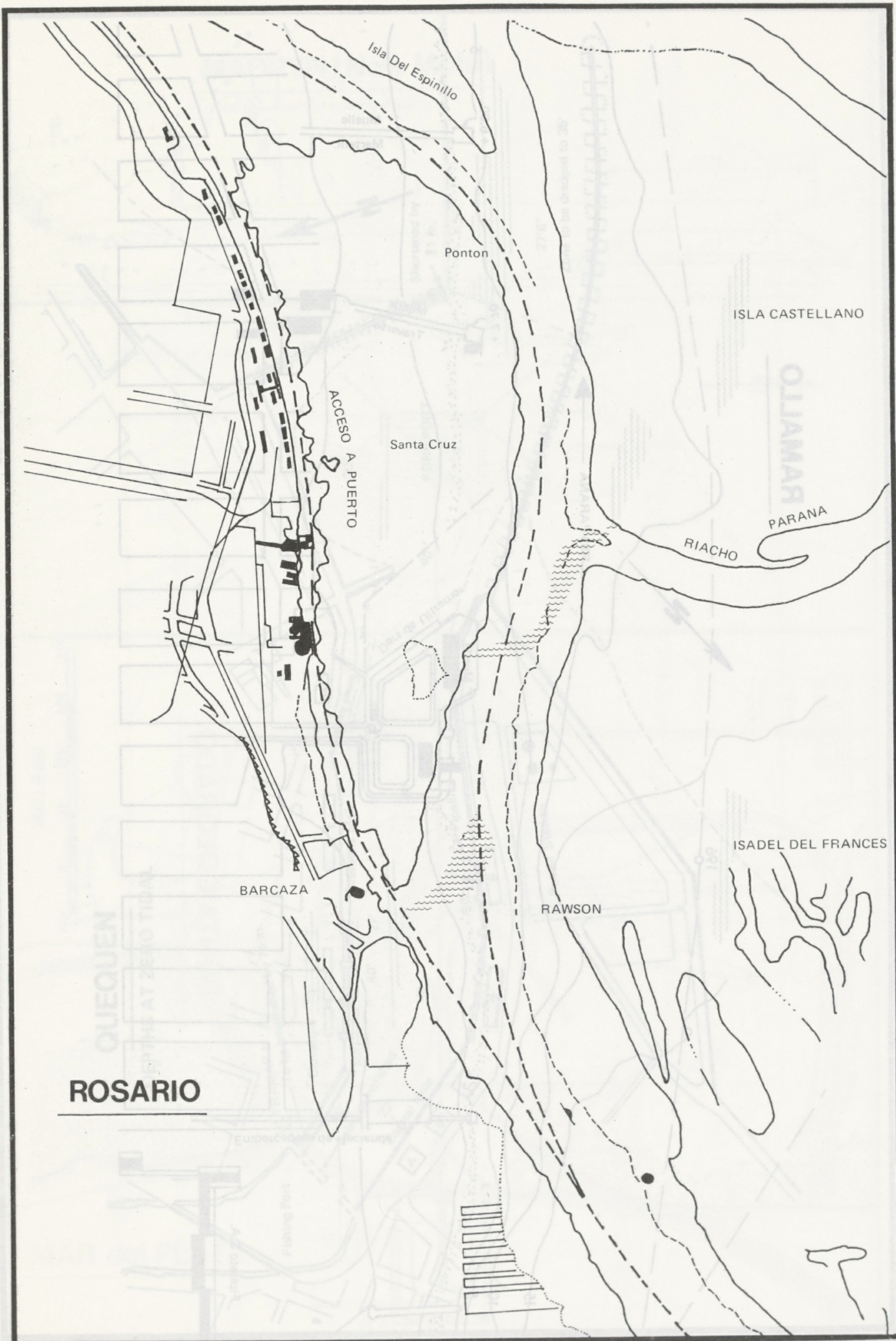




# RAMALLO







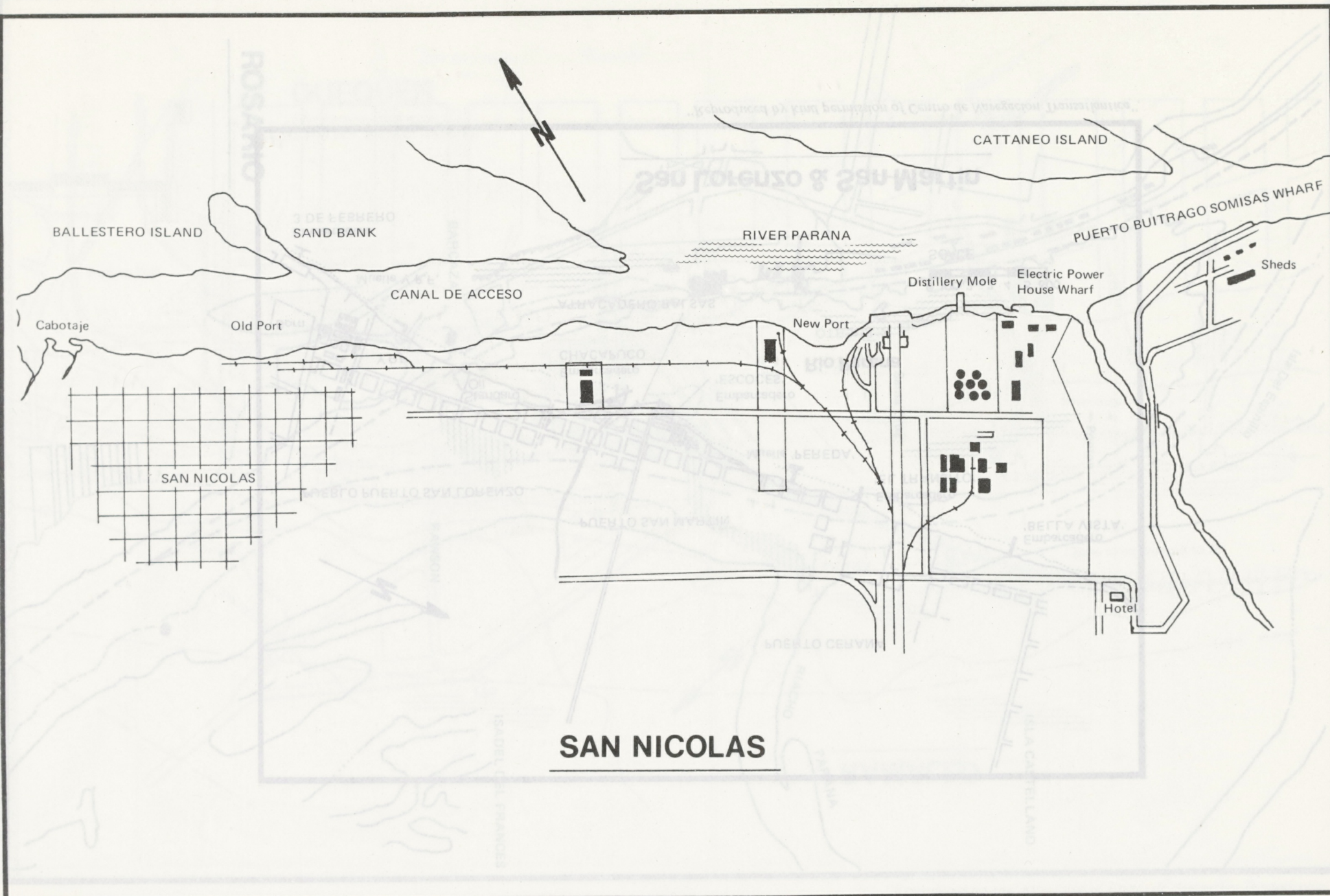
# **ROSARIO**



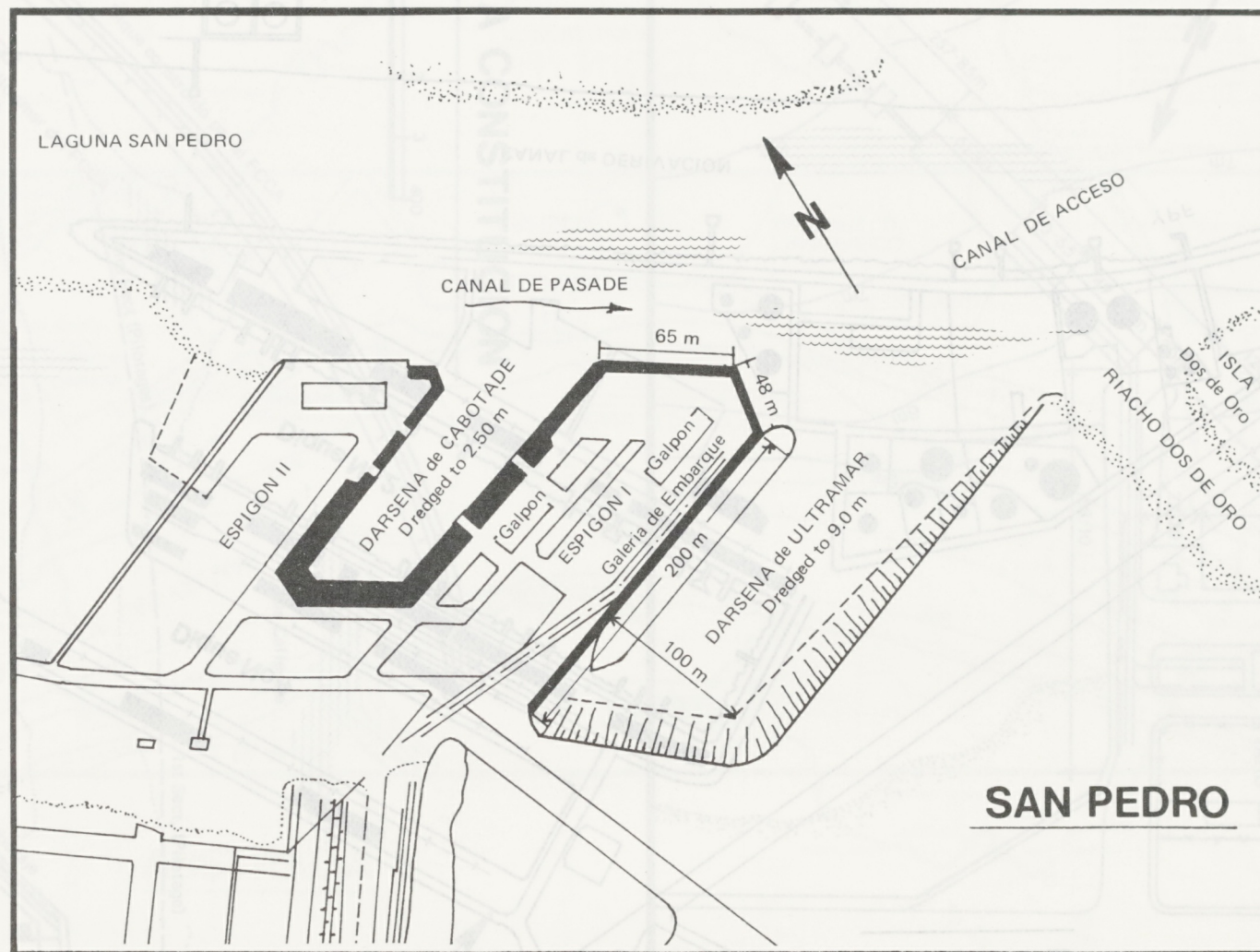


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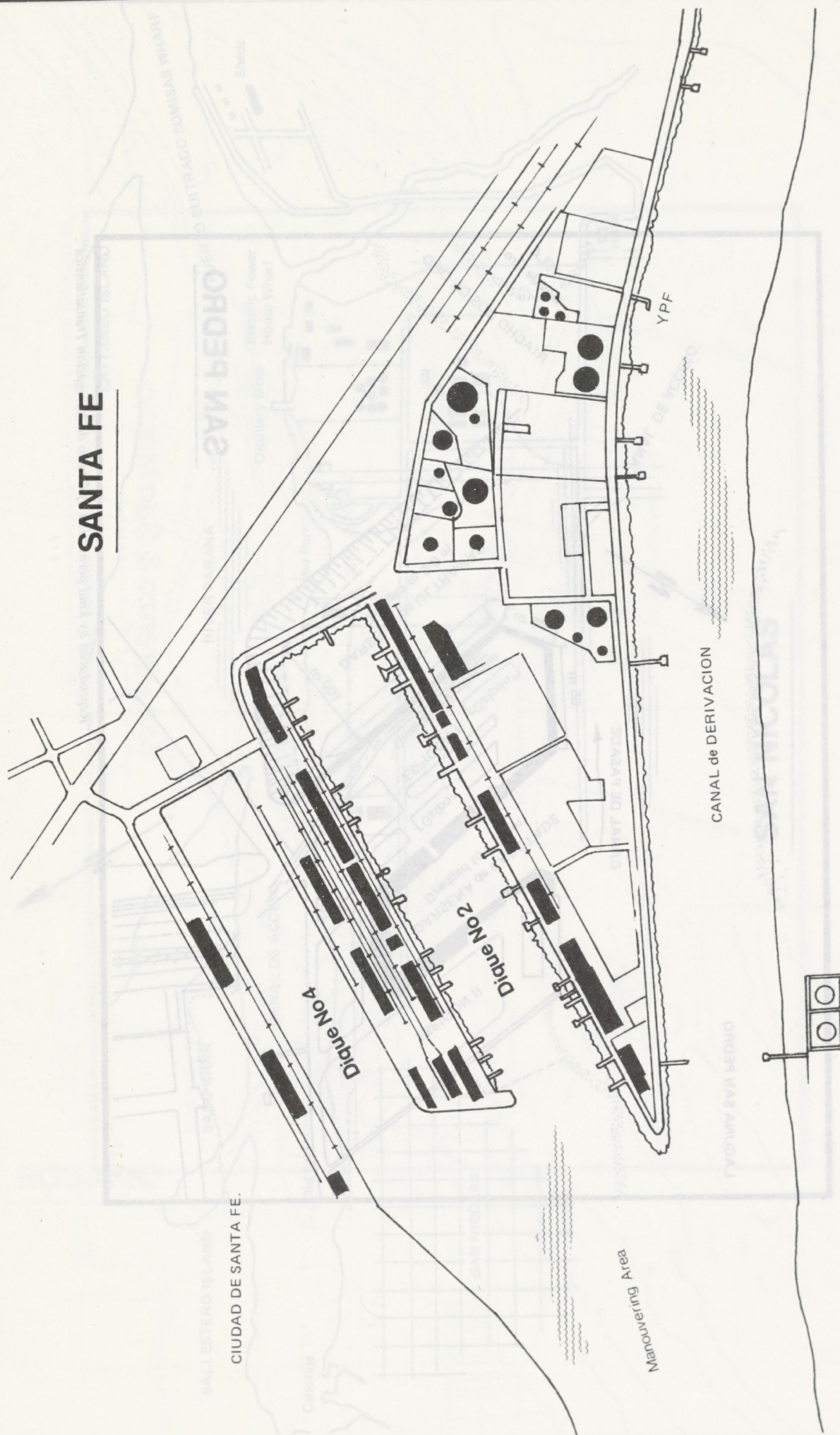




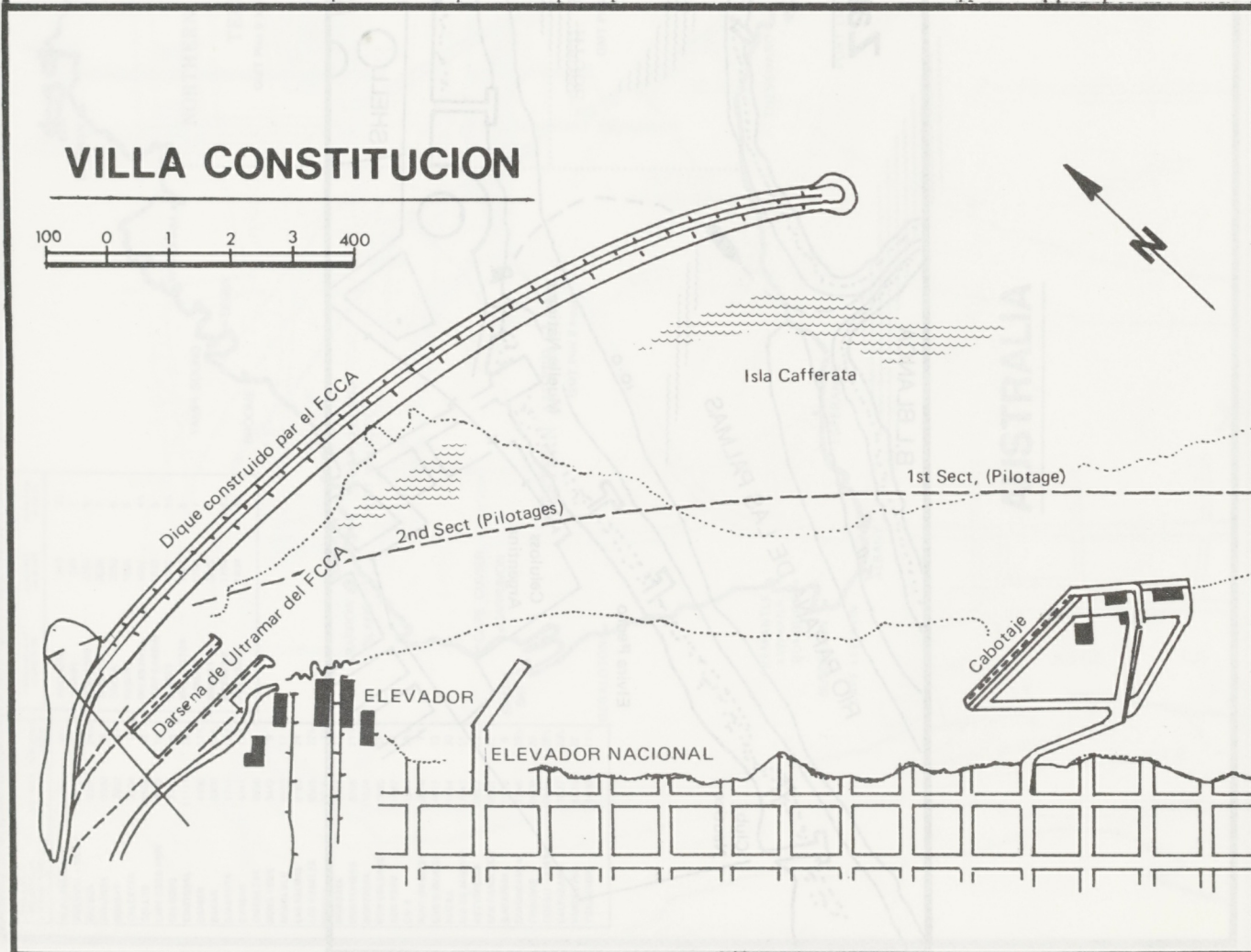
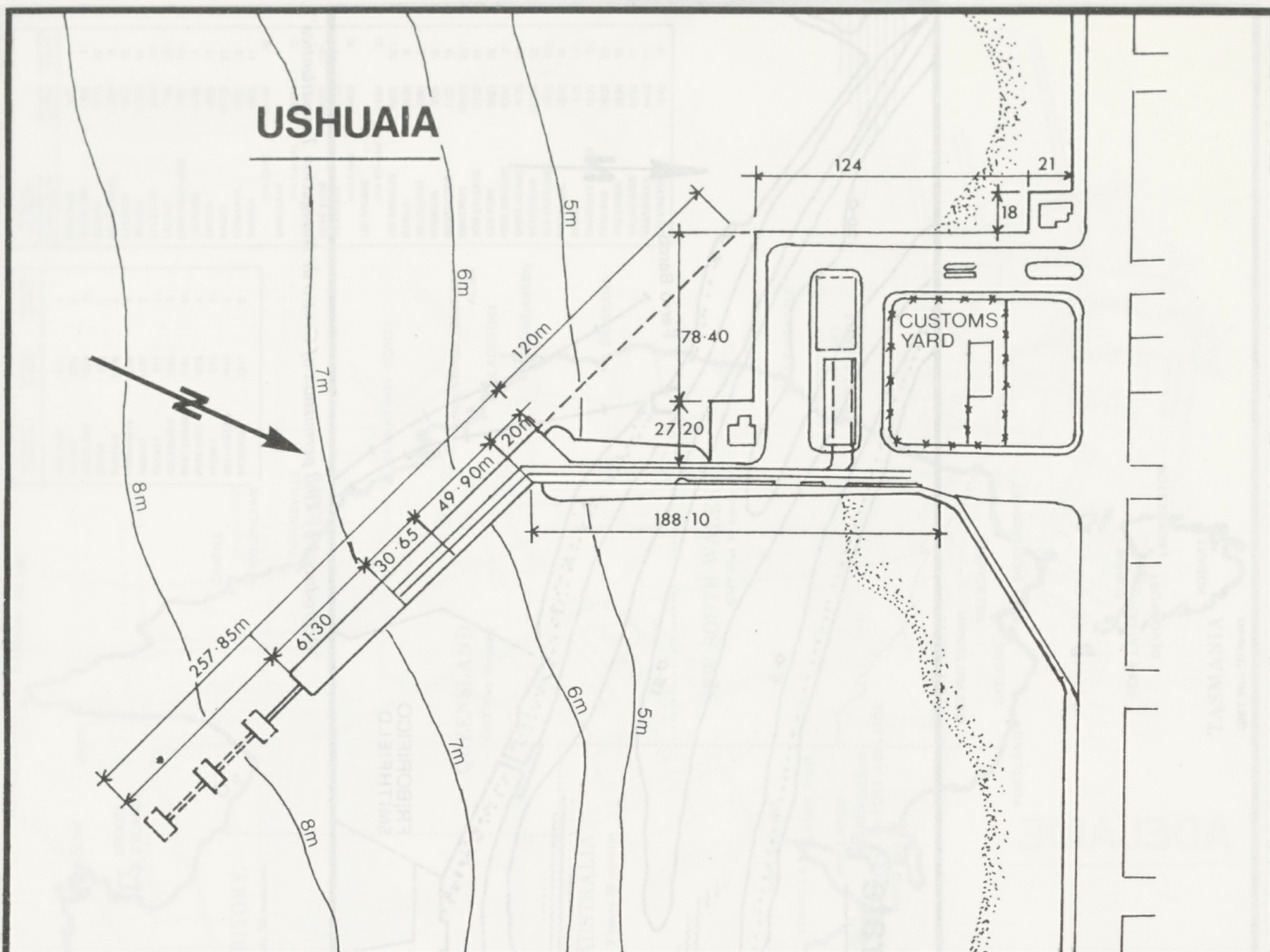
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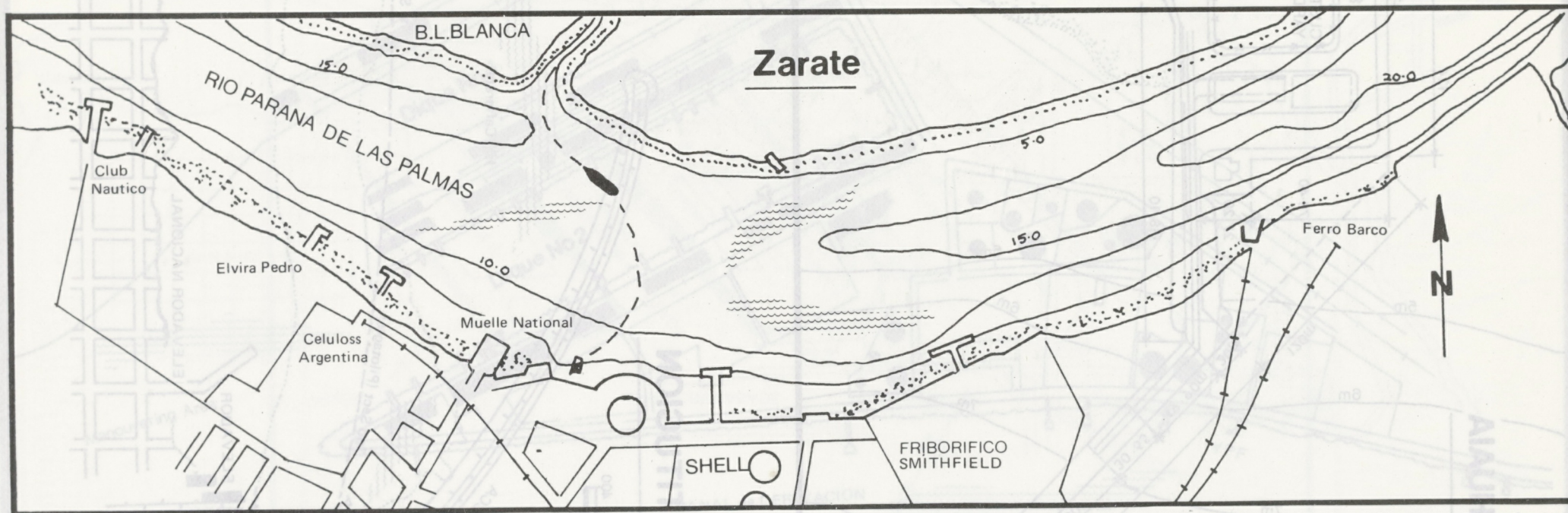
# SANTA FE











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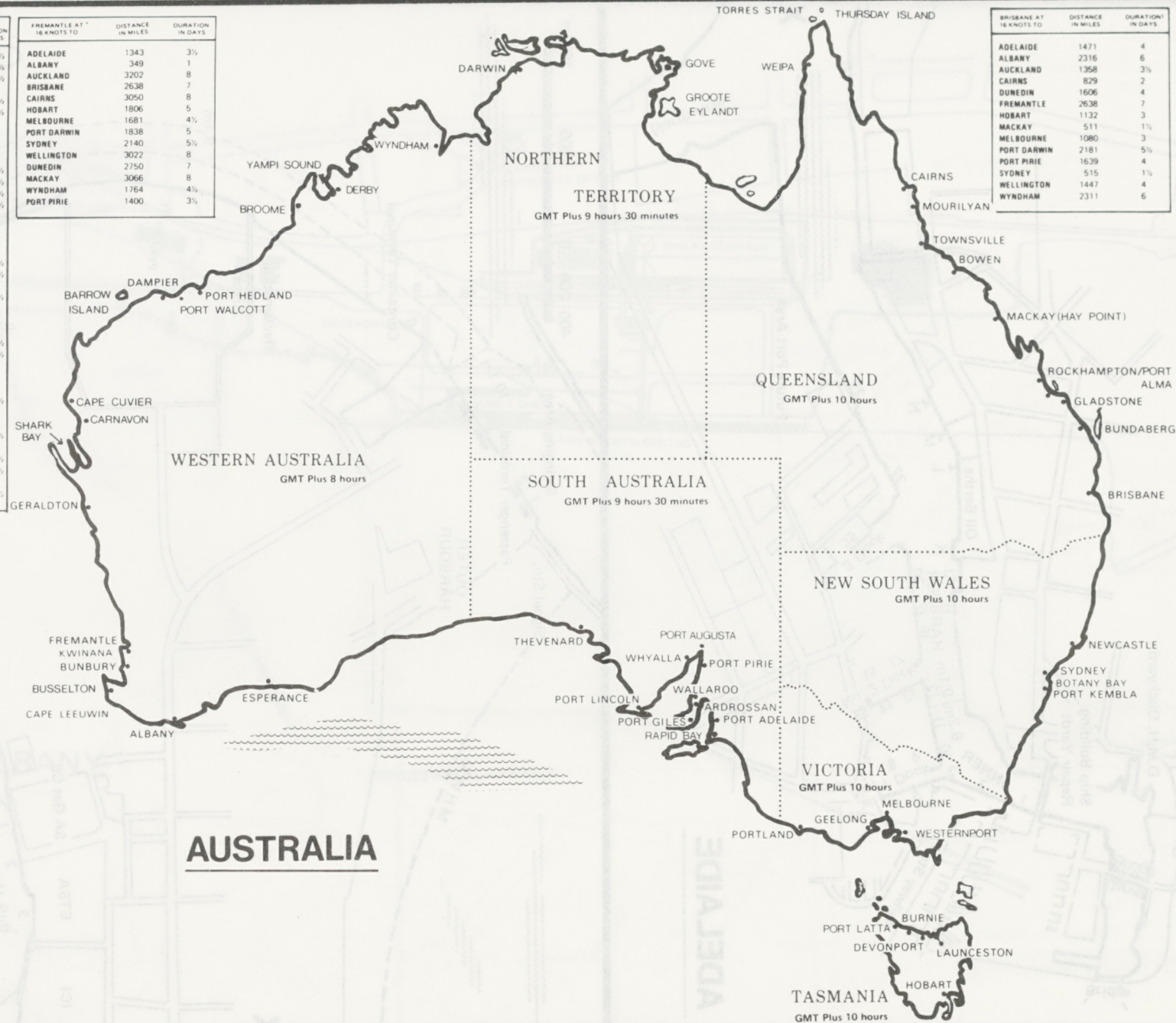


FREMANTLE VIA CAPE AT 16 KNOTS TO	DISTANCE IN MILES	DURATION IN DAYS
ALEXANDRIA	11654	30%
AUGUSTA - SICILY	10891	28%
BALBOA	9357	24%
BANGKOK	3000	8
BOMBAY	3982	10%
CALCUTTA	3684	9%
CALLAO	8500	22
CAPE GOOD HOPE	4672	12
COLOMBO	3121	8
CRISTOBAL	11111	29
DAIREN	4400	11%
DAKAR	8300	21%
DJAKARTA	1761	4%
DURBAN	4241	11%
GIBRALTAR	9856	26
HONG KONG	3442	9
HONOLULU	6503	17
LAS PALMAS	9156	24
LOS ANGELES	8565	22%
MANILA	2925	7%
MOMBASA	4564	12
MONTEVIDEO	8266	21%
MONTREAL	11824	31
NEW ORLEANS	11980	31
NEW YORK	11482	30
OSLO	11361	29%
PORT MORESBY	2878	7%
QUIN ISLAND	4877	13
RIJEKA	11464	30
RIO DE JANEIRO	7943	21
ROTTERDAM	10862	28%
SAN FRANCISCO	8501	22
SINGAPORE	2220	6
SKARAMANGA	11346	29%
TRINIDAD	10000	26
TRIPOLI - LIBYA	10931	28%
VALPARAISO	7827	20%
VANCOUVER	8424	22
YOKOHAMA	4460	11%

FREMANTLE AT 16 KNOTS TO	DISTANCE IN MILES	DURATION IN DAYS
ADELAIDE	1343	3%
ALBANY	349	1
AUCKLAND	3202	8
BRISBANE	2638	7
CAIRNS	3050	8
HOBART	1806	5
MELBOURNE	1681	4%
PORT DARWIN	1838	5
SYDNEY	2140	5%
WELLINGTON	3022	8
DUNEDIN	2750	7
MACKAY	3066	8
WYNDHAM	1764	4%
PORT PIRIE	1400	3%

BRISBANE AT 16 KNOTS TO	DISTANCE IN MILES	DURATION IN DAYS
ADELAIDE	1471	4
ALBANY	2316	6
AUCKLAND	1358	3%
CAIRNS	829	2
DUNEDIN	1606	4
FREMANTLE	2638	7
HOBART	1132	3
MACKAY	511	1%
MELBOURNE	1080	3
PORT DARWIN	2181	5%
PORT PIRIE	1639	4
SYDNEY	515	1%
WELLINGTON	1447	4
WYNDHAM	2311	6

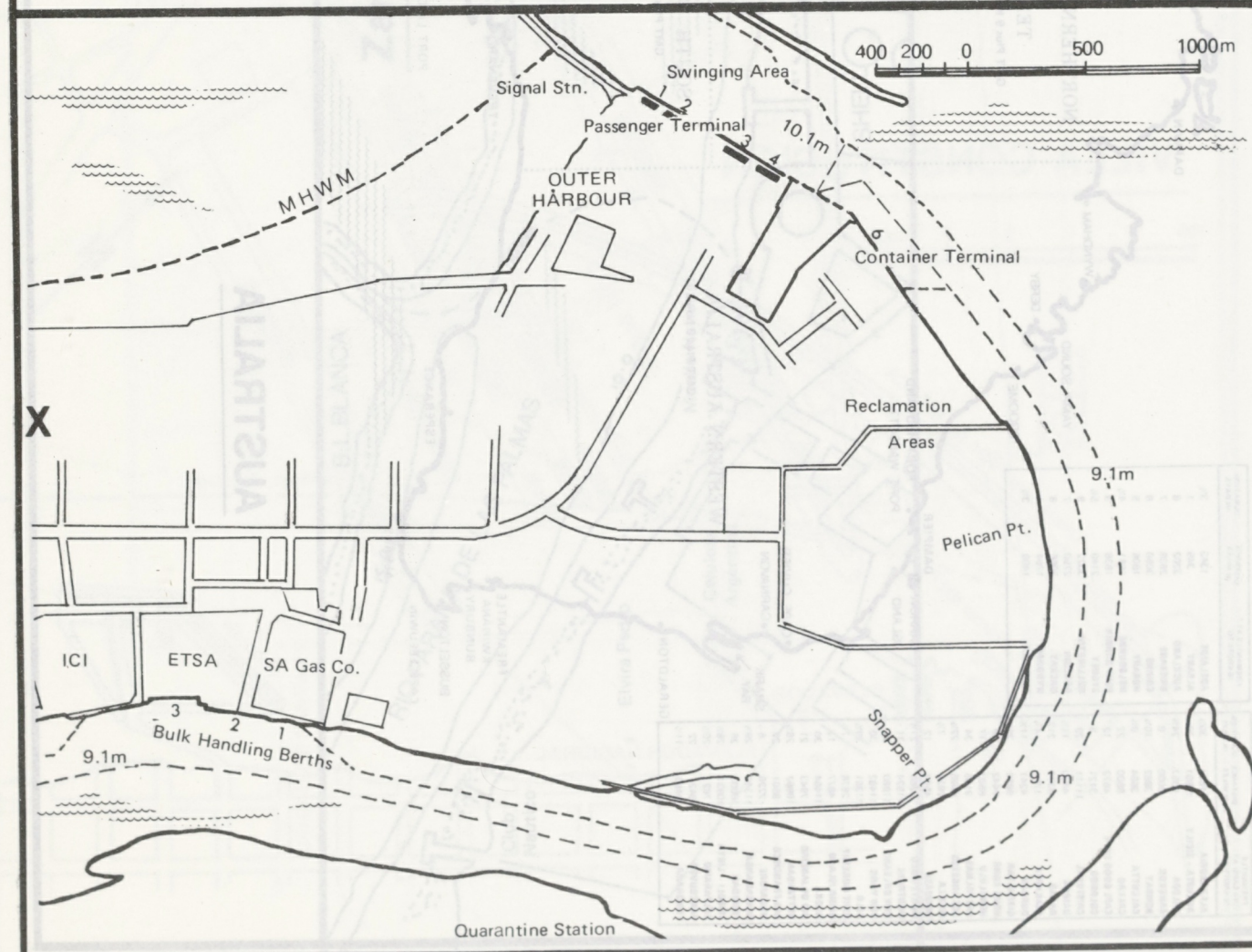
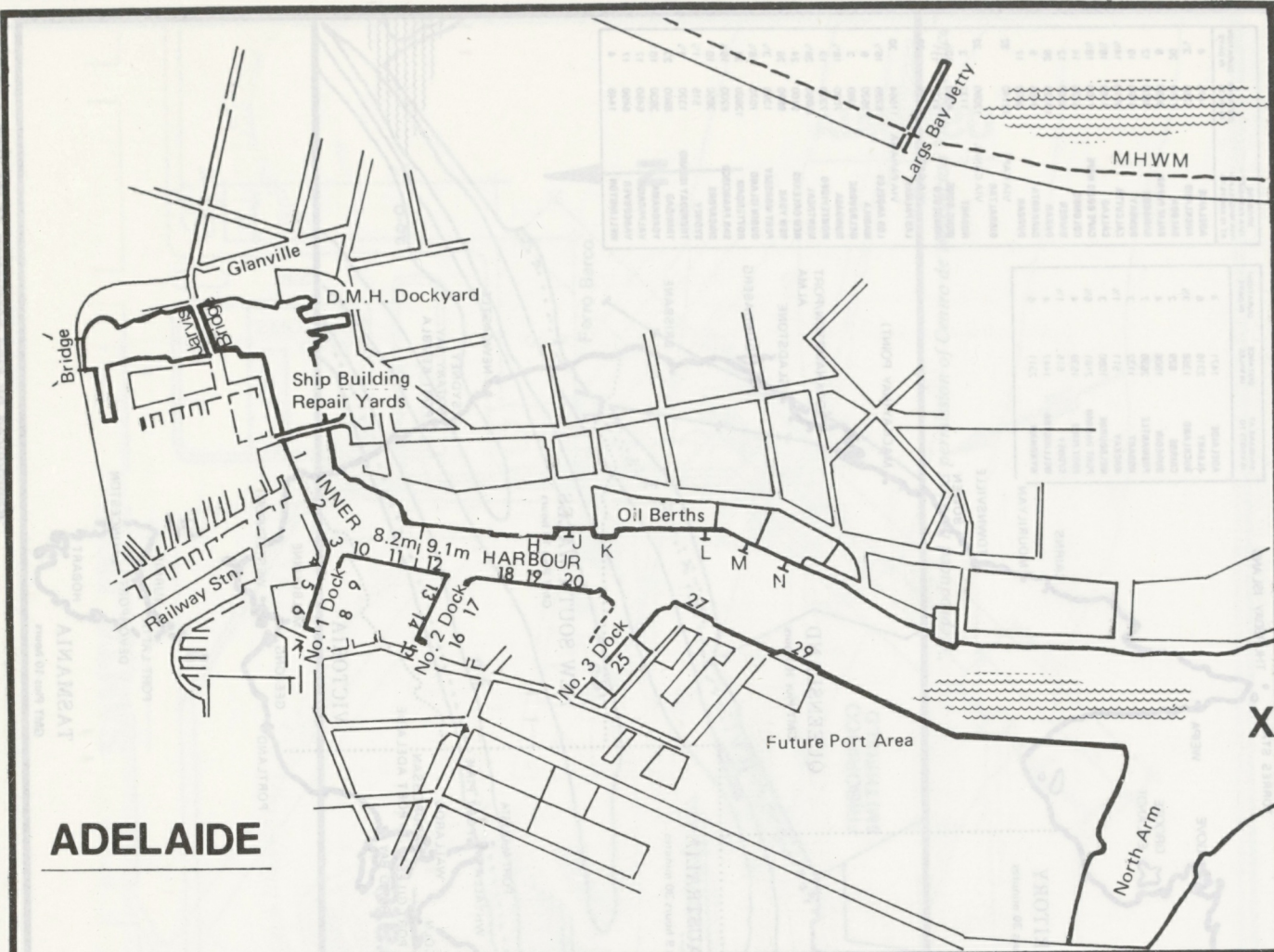
BRISBANE VIA PANAMA AT 16 KNOTS TO	DISTANCE IN MILES	DURATION IN DAYS
ADELAIDE	1475	4
AUCKLAND	1358	3%
BALBOA	2714	20
BALIK PAPAN	3098	8
BANGKOK	4600	12
BOMBAY	6196	16
CALCUTTA	5510	14%
CALLAO	7103	18%
CAPE GOOD HOPE	7100	18%
COLOMBO	5325	14
DAIREN	4500	12
DAKAR	10728	26
DJAKARTA	3485	9
DURBAN	6608	17
VIA CAPE	12140	32
GIBRALTAR	12090	32
VIA CANAL	1132	3
HOBART	4070	10%
HONG KONG	4070	10%
HONOLULU	4118	11
VIA CAPE	11469	30
LAS PALMAS	11564	30
VIA PANAMA	11564	30
LOS ANGELES	6285	16%
MANILA	3520	9
MELBOURNE	1080	3
MOMBASA	7000	18%
MONTEVIDEO	7300	19
MONTREAL	10950	28%
NEW ORLEANS	9100	24
NEW YORK	9890	26
PORT MORESBY	1390	3%
QUIN ISLAND	7070	18%
ROTTERDAM	12600	33
SAN FRANCISCO	6200	16%
SINGAPORE	3850	10
SYDNEY	515	1%
THURSDAY ISLAND	1320	3%
TRINIDAD	8900	23
YOKOHAMA	3930	10
VALPARAISO	6450	17
VANCOUVER	6490	17
WELLINGTON	1446	4



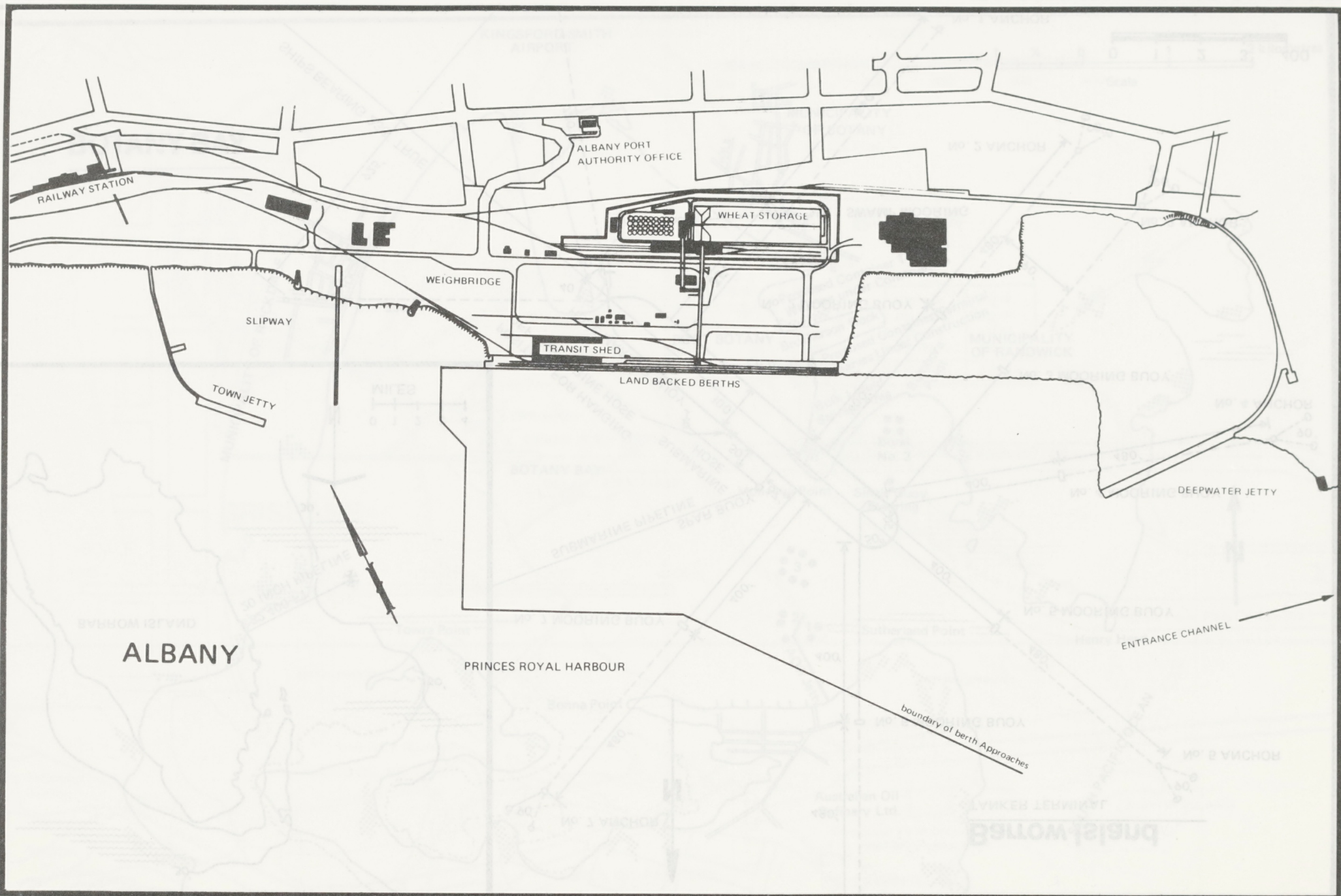
# AUSTRALIA

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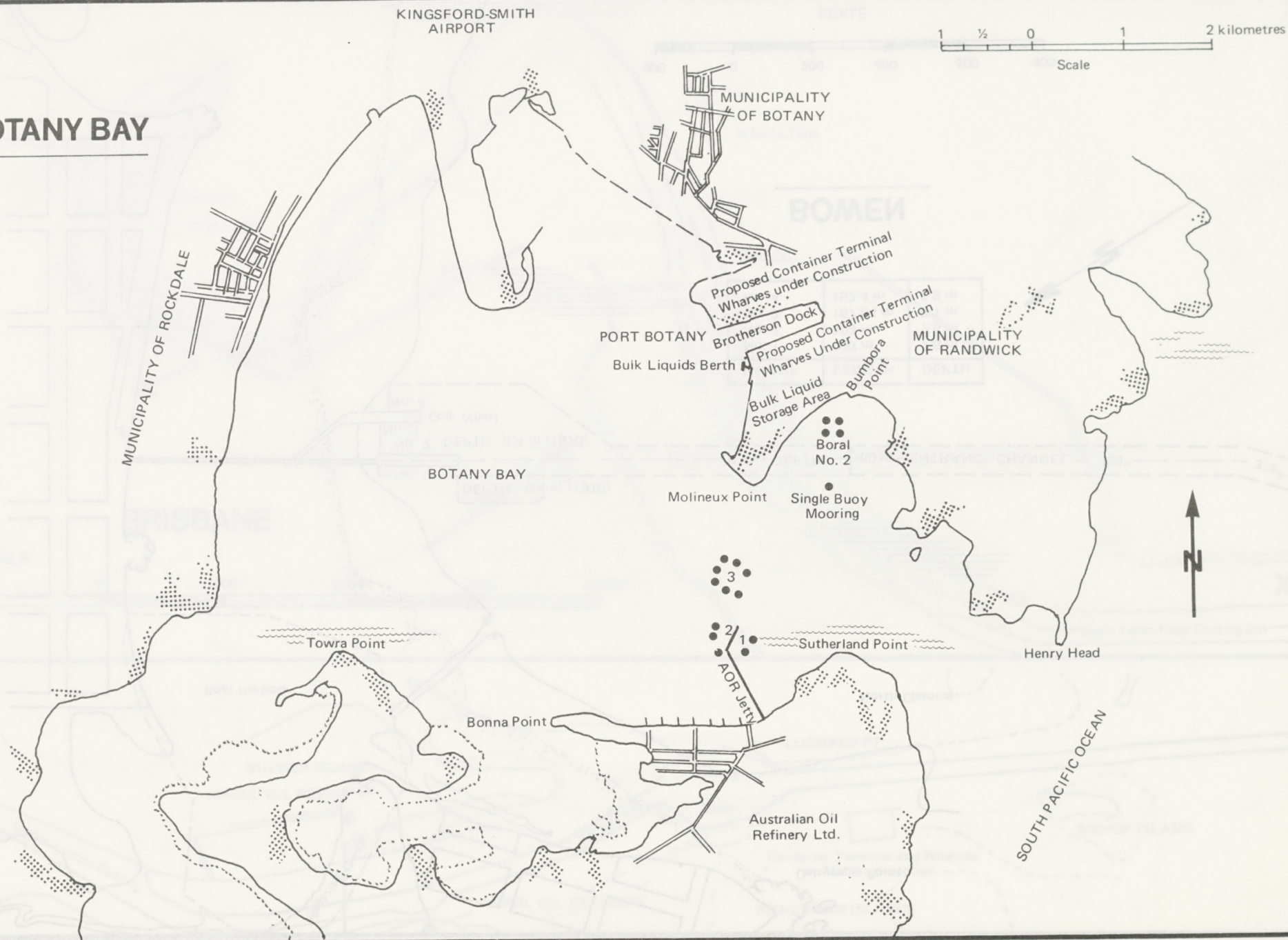
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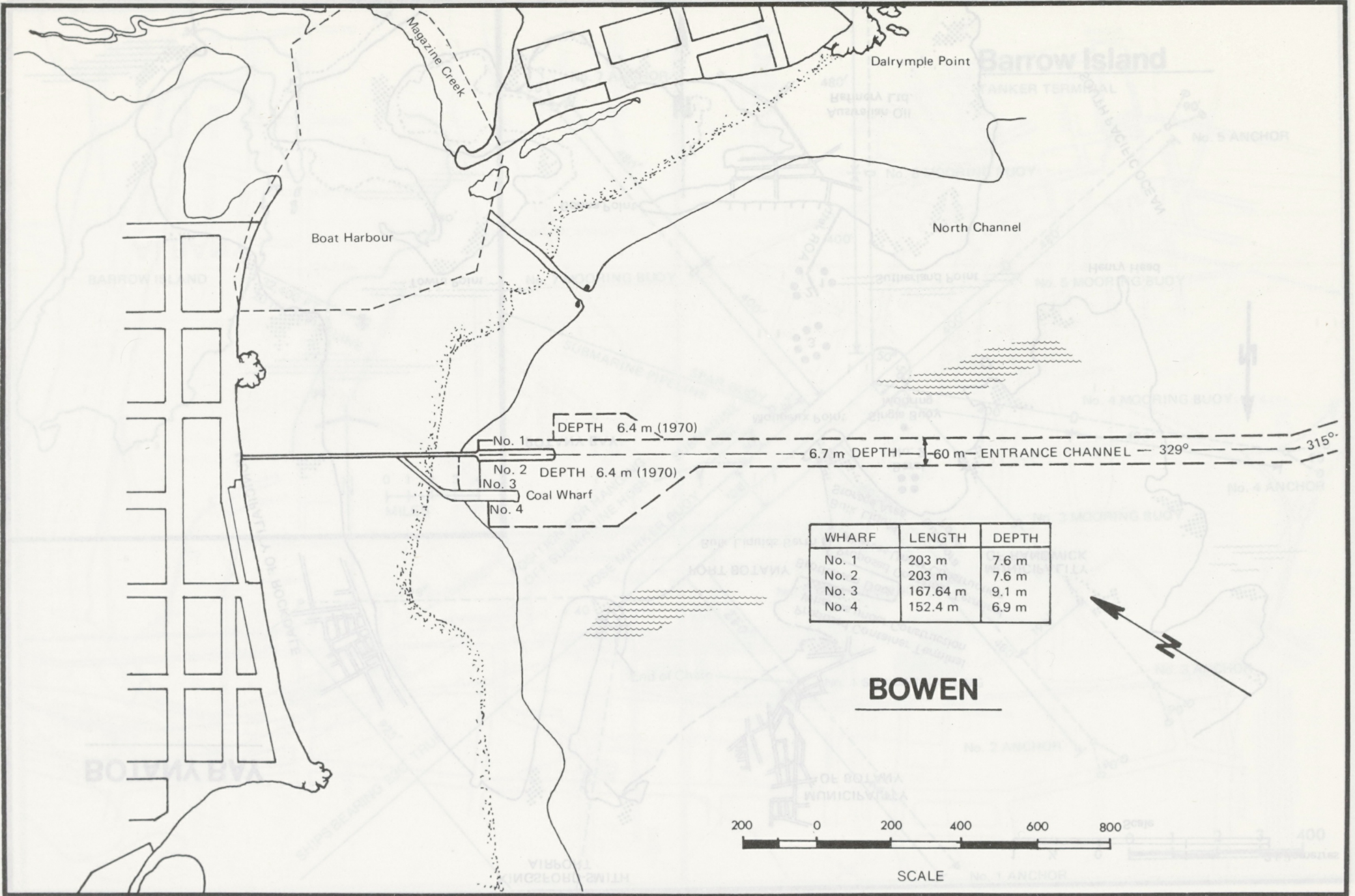


# BOTANY BAY

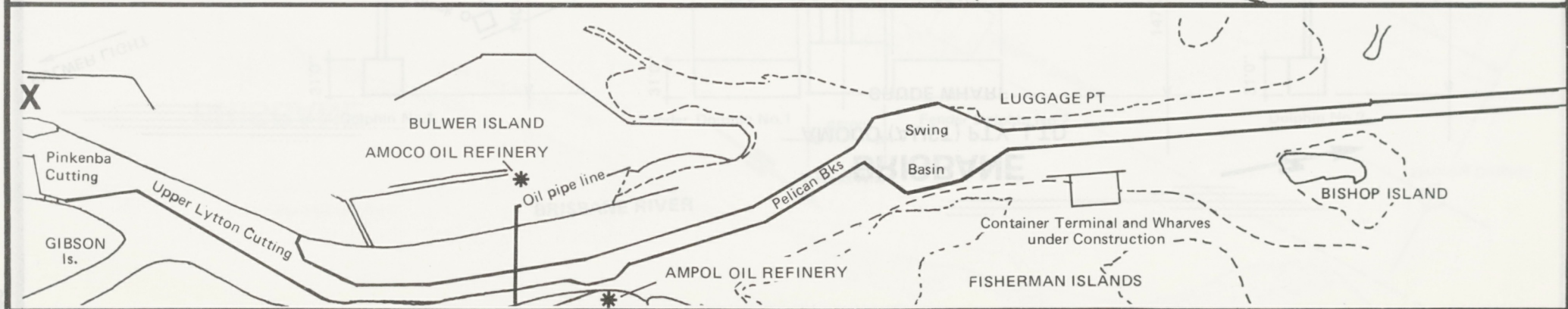
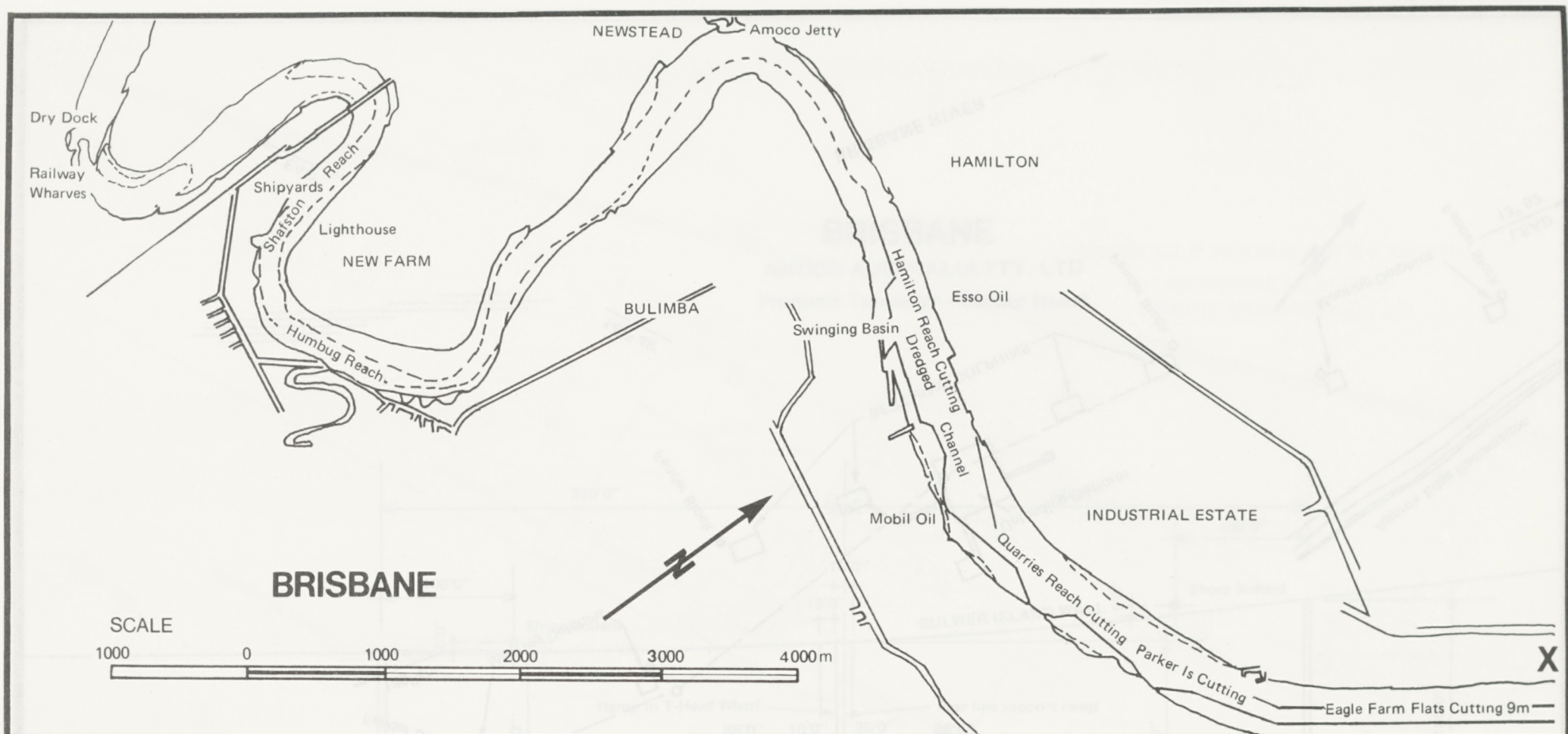


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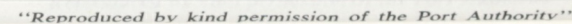








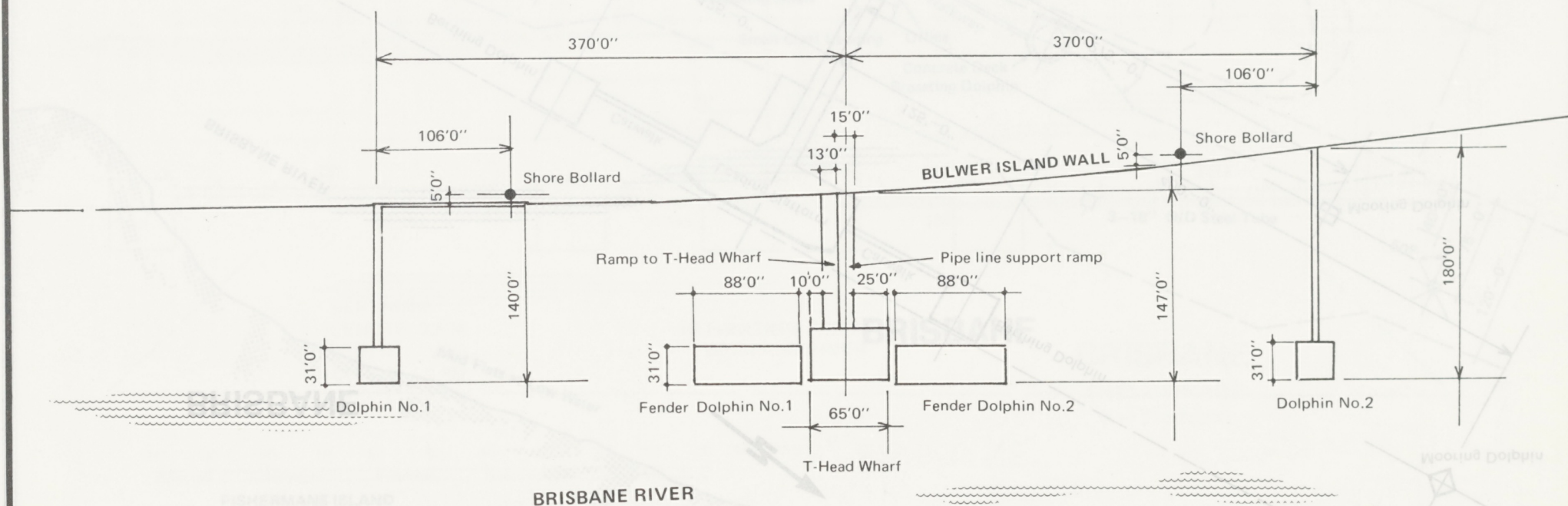
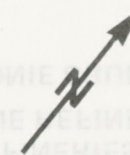




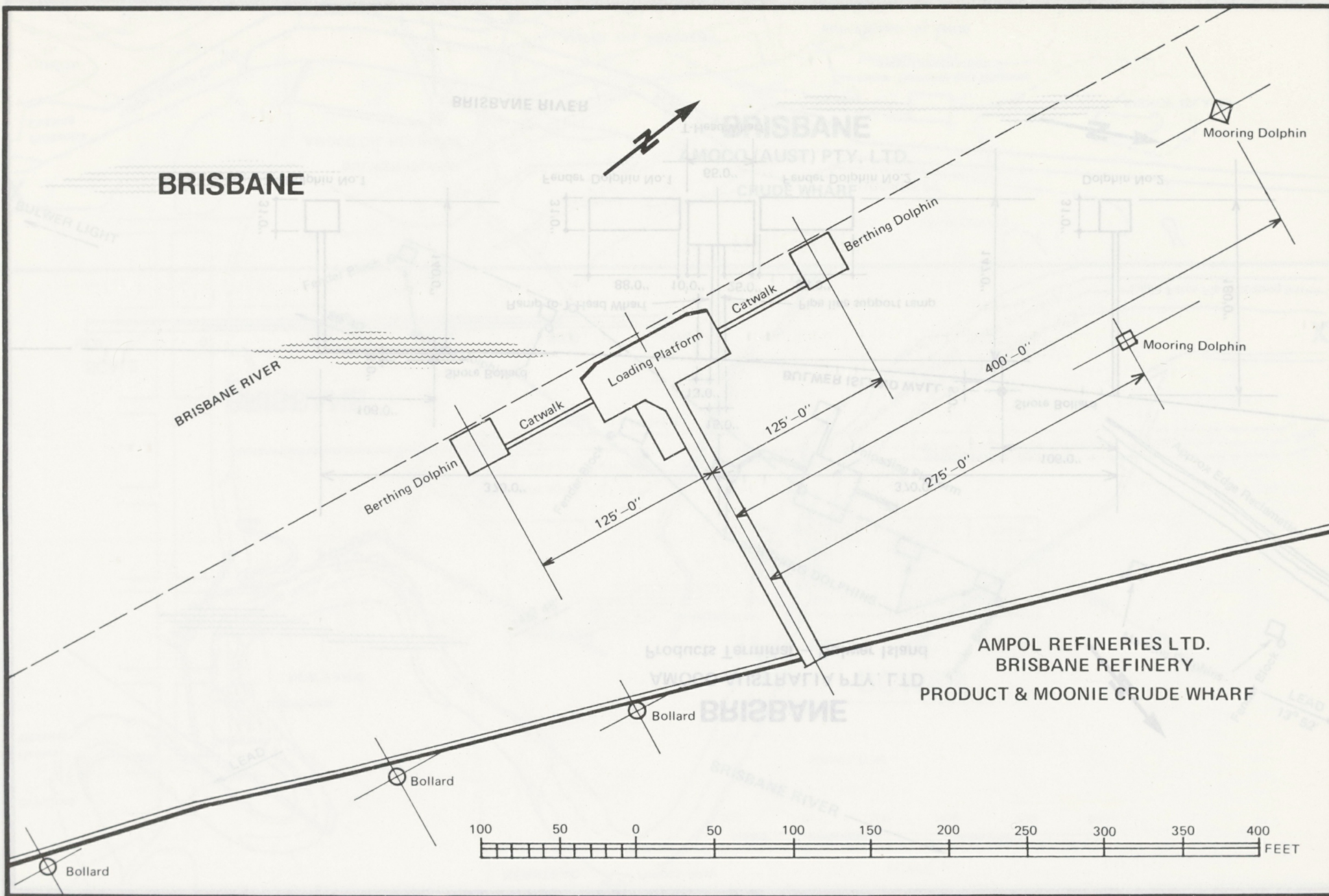


# BRISBANE

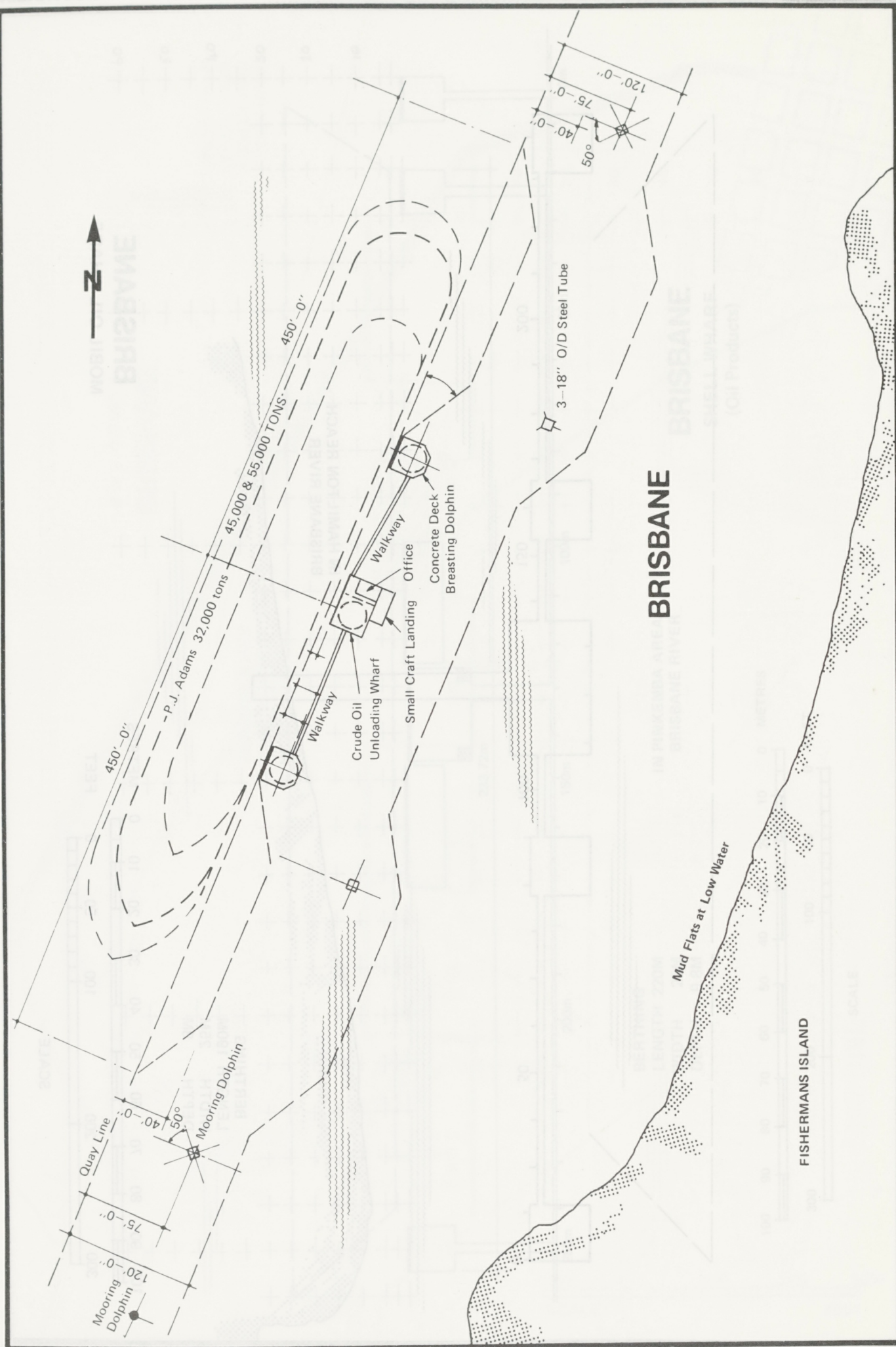
AMOCO AUSTRALIA PTY. LTD  
Products Terminal – Bulwer Island





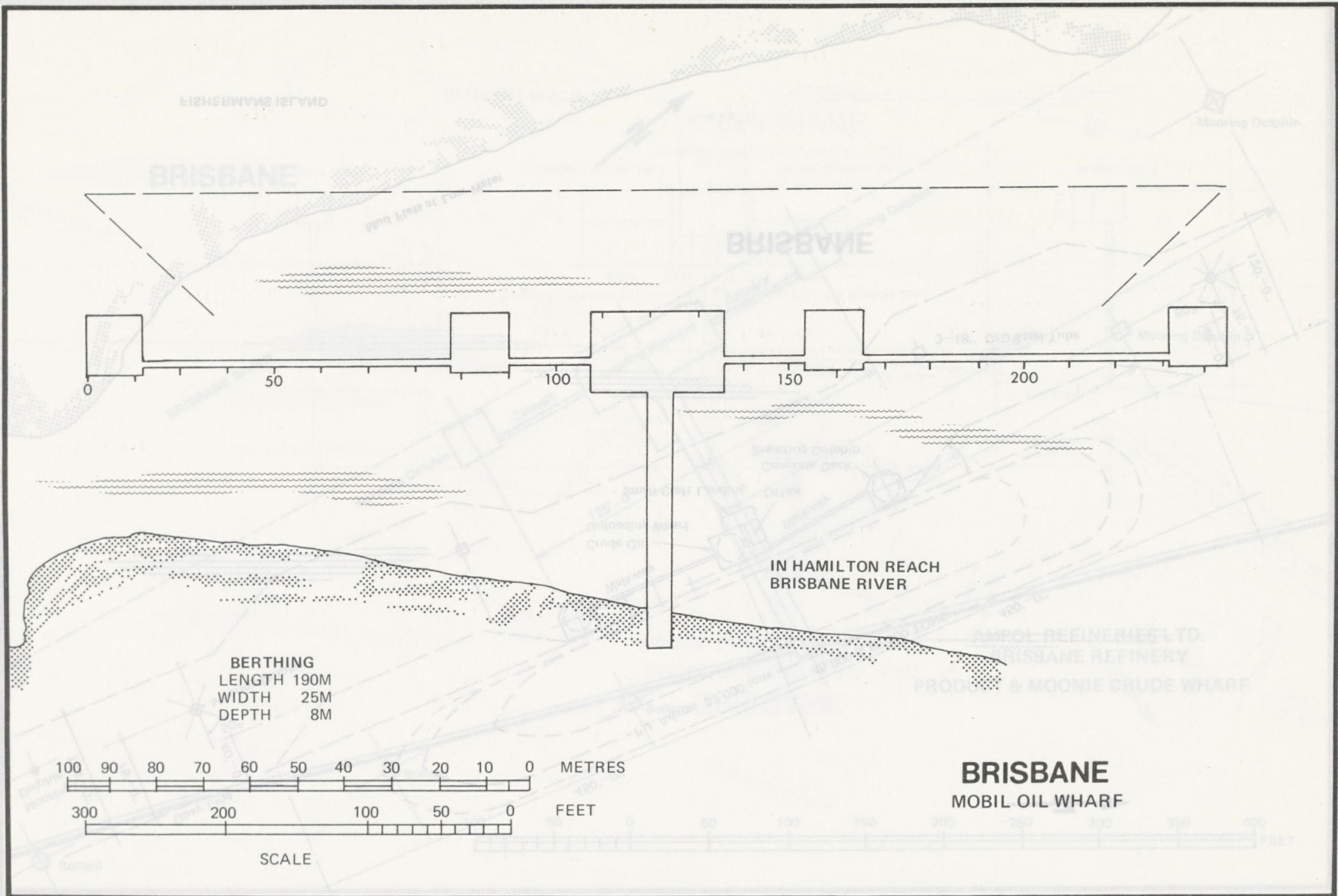




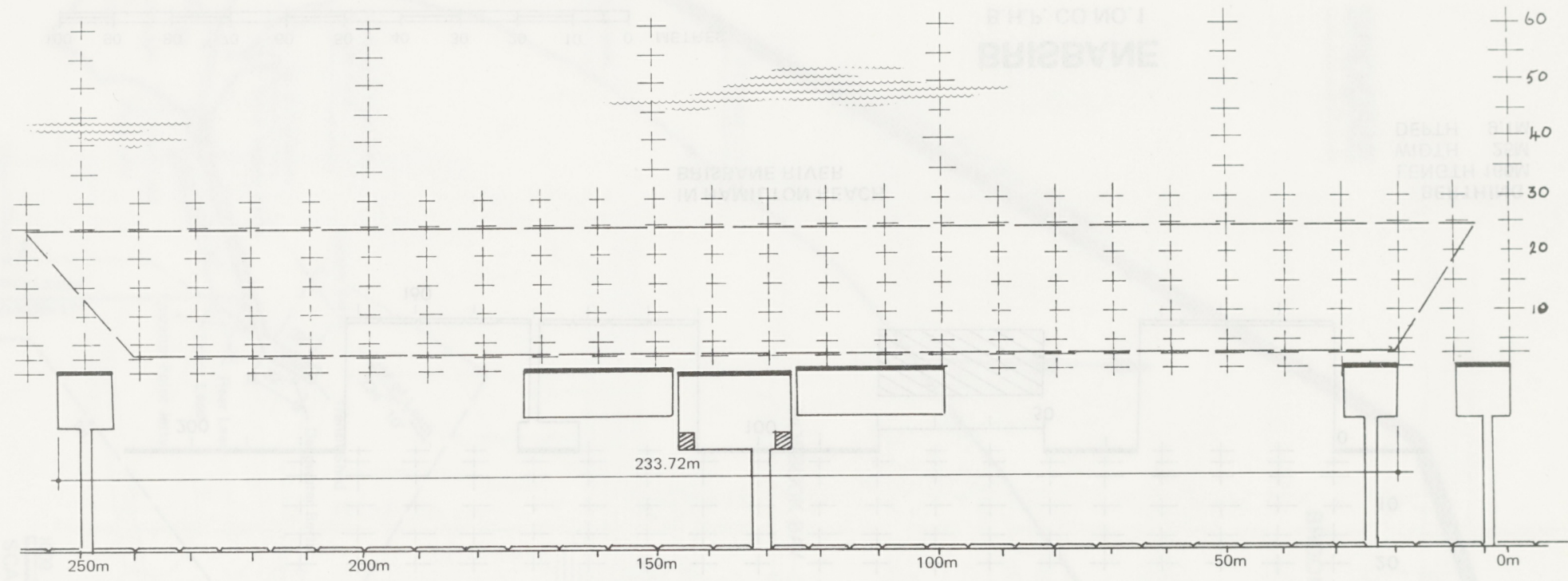


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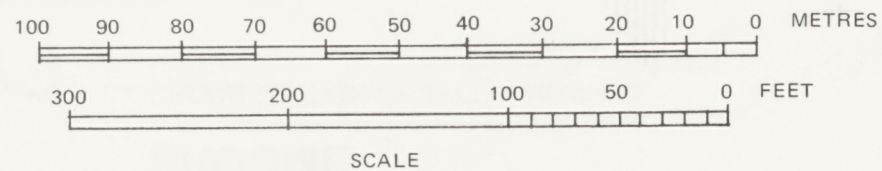




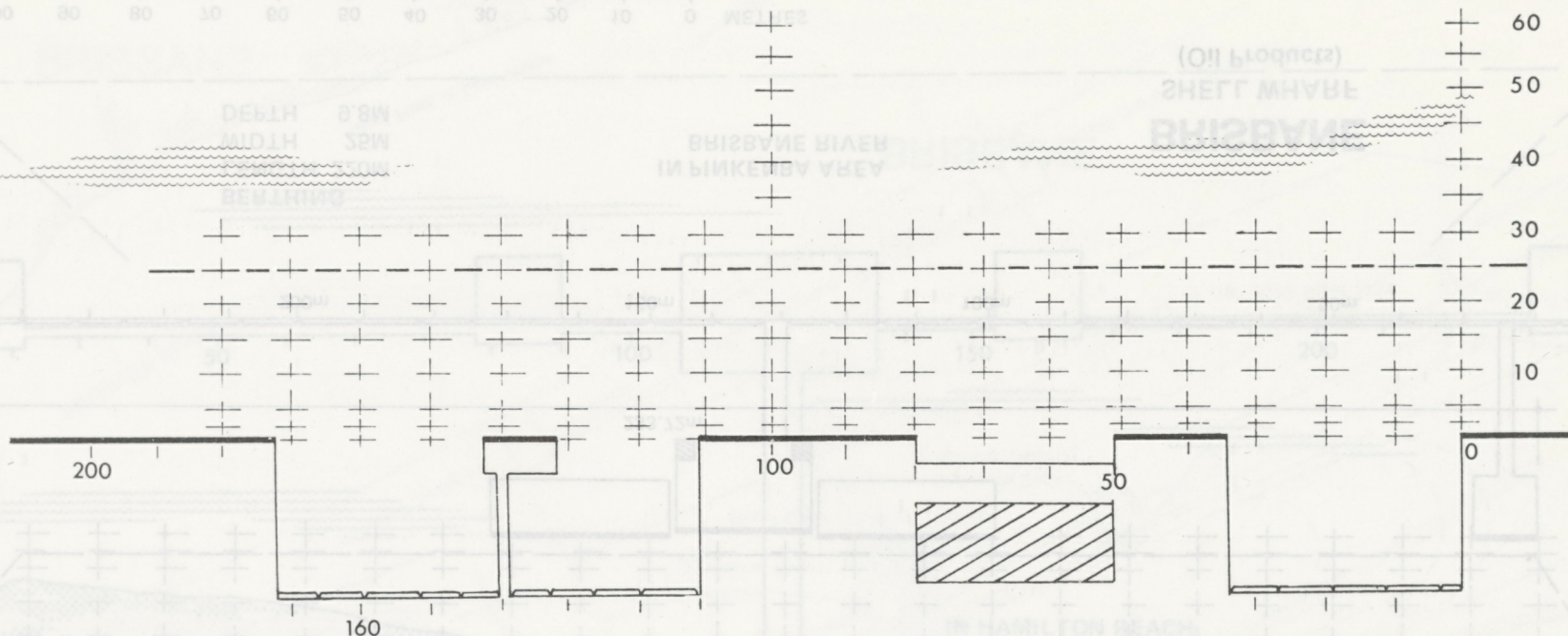
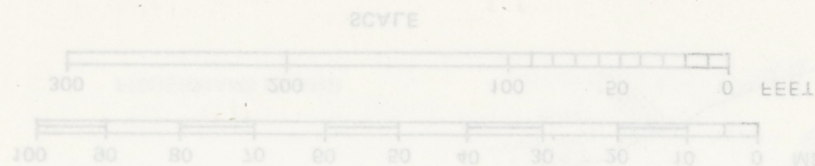
**BERTHING**  
LENGTH 220M  
WIDTH 25M  
DEPTH 9.8M

**IN PINKENBA AREA  
BRISBANE RIVER**

**BRISBANE**  
**SHELL WHARF**  
(Oil Products)

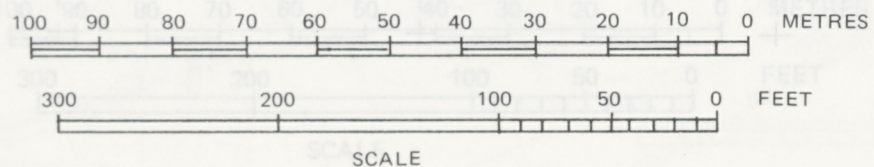






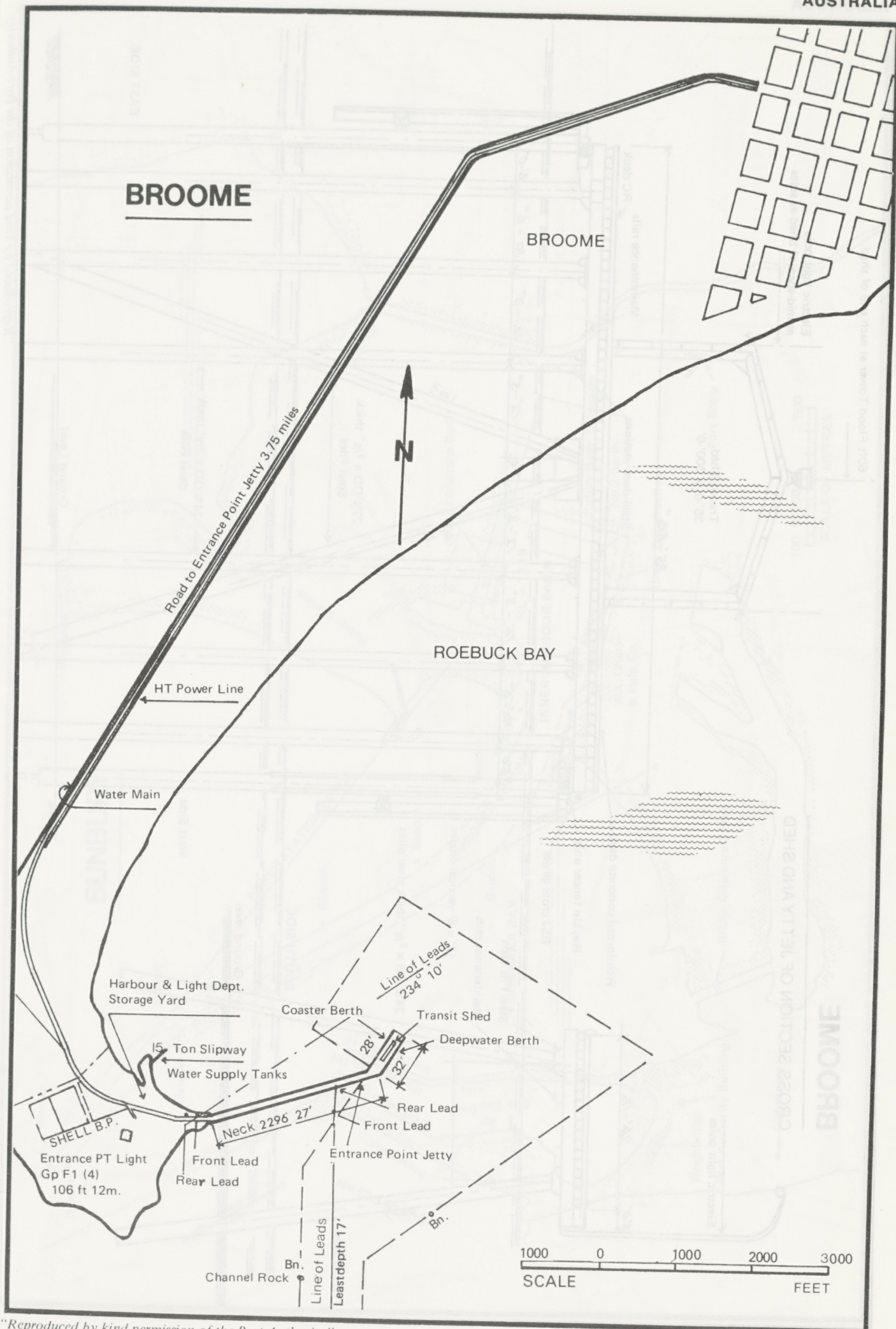
IN HAMILTON REACH  
BRISBANE RIVER

BERTHING  
LENGTH 160M  
WIDTH 25M  
DEPTH 9.1M



**BRISBANE**  
B.H.P. CO NO.1

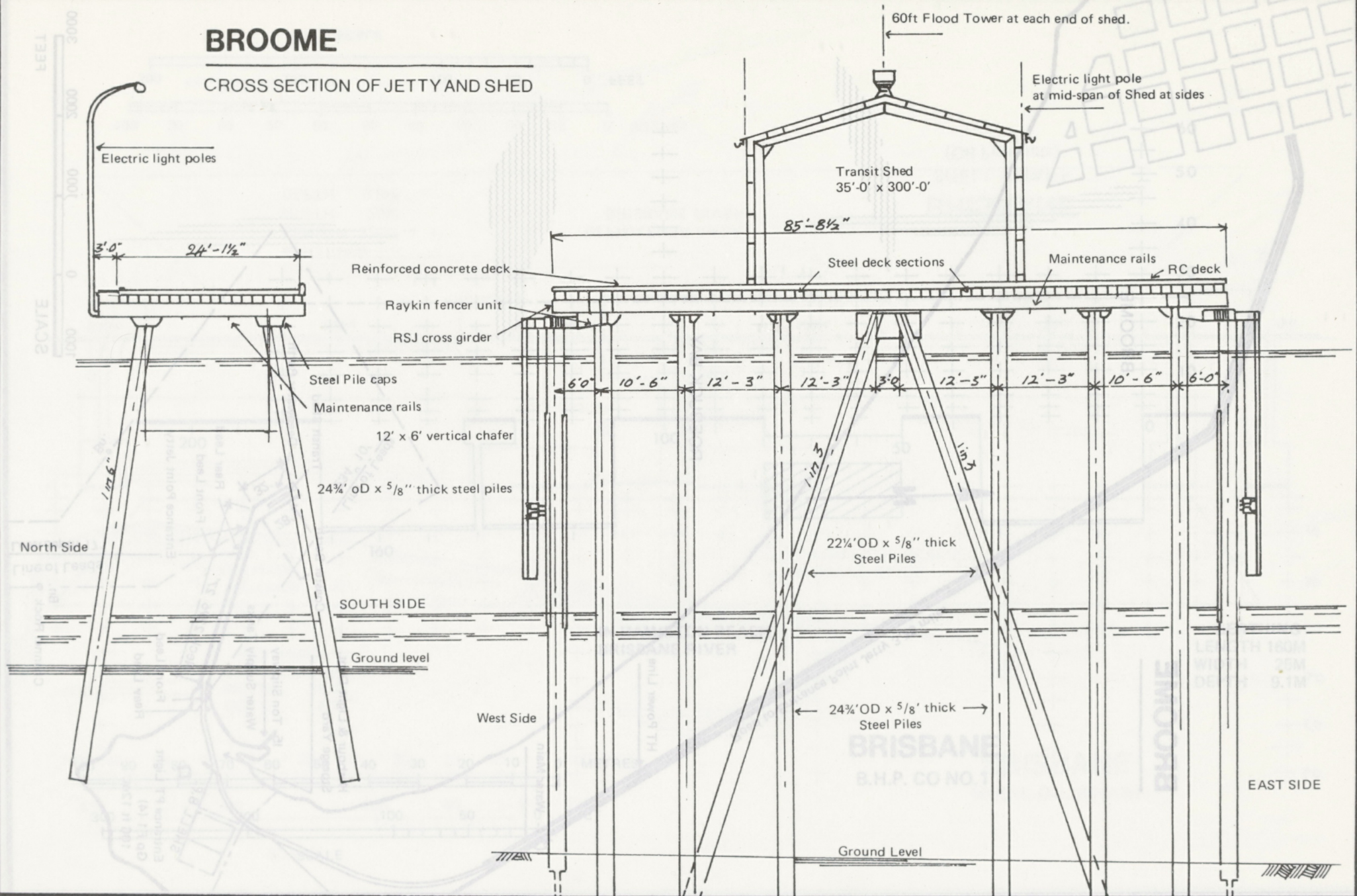






# BROOME

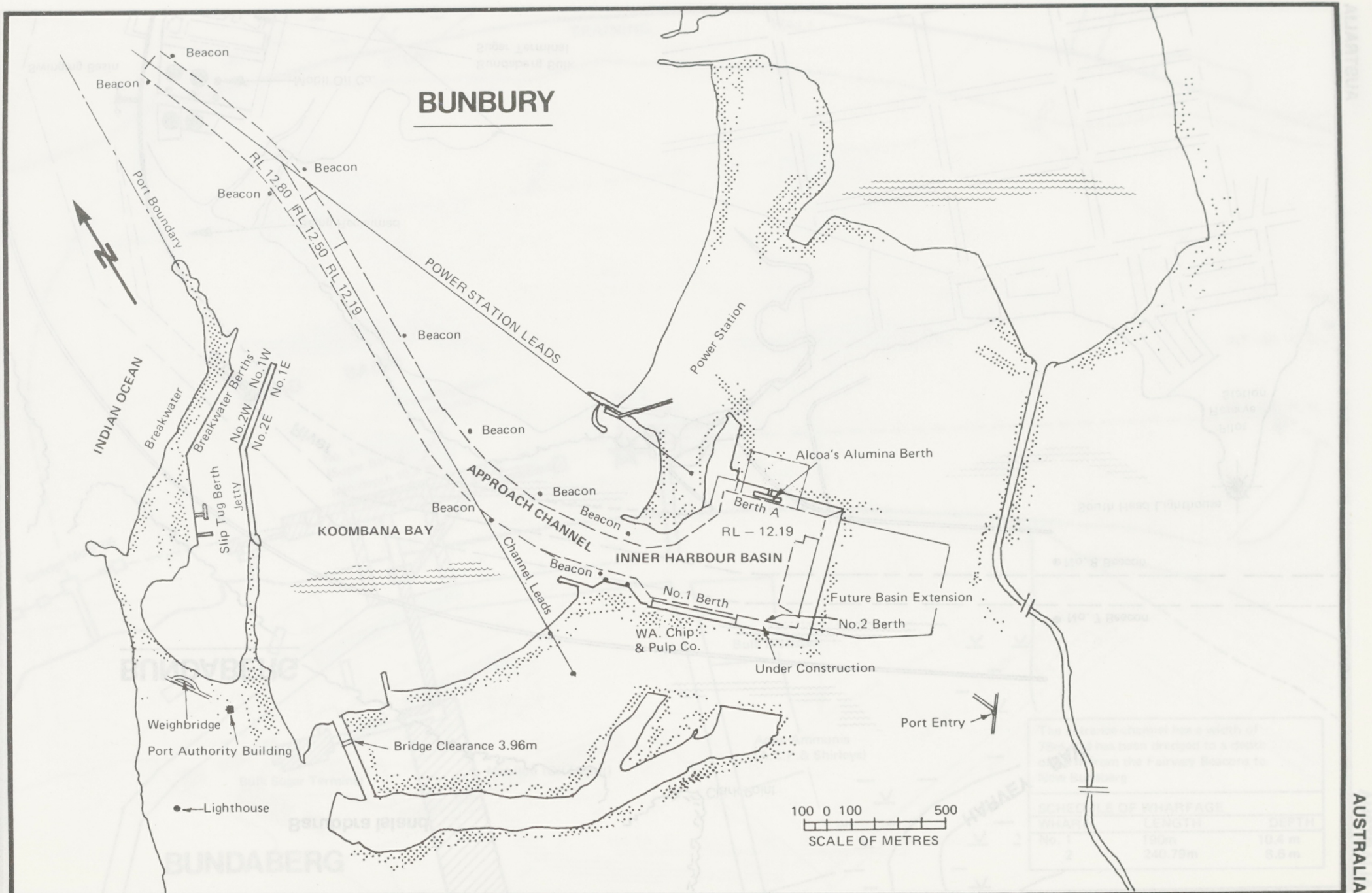
## CROSS SECTION OF JETTY AND SHED



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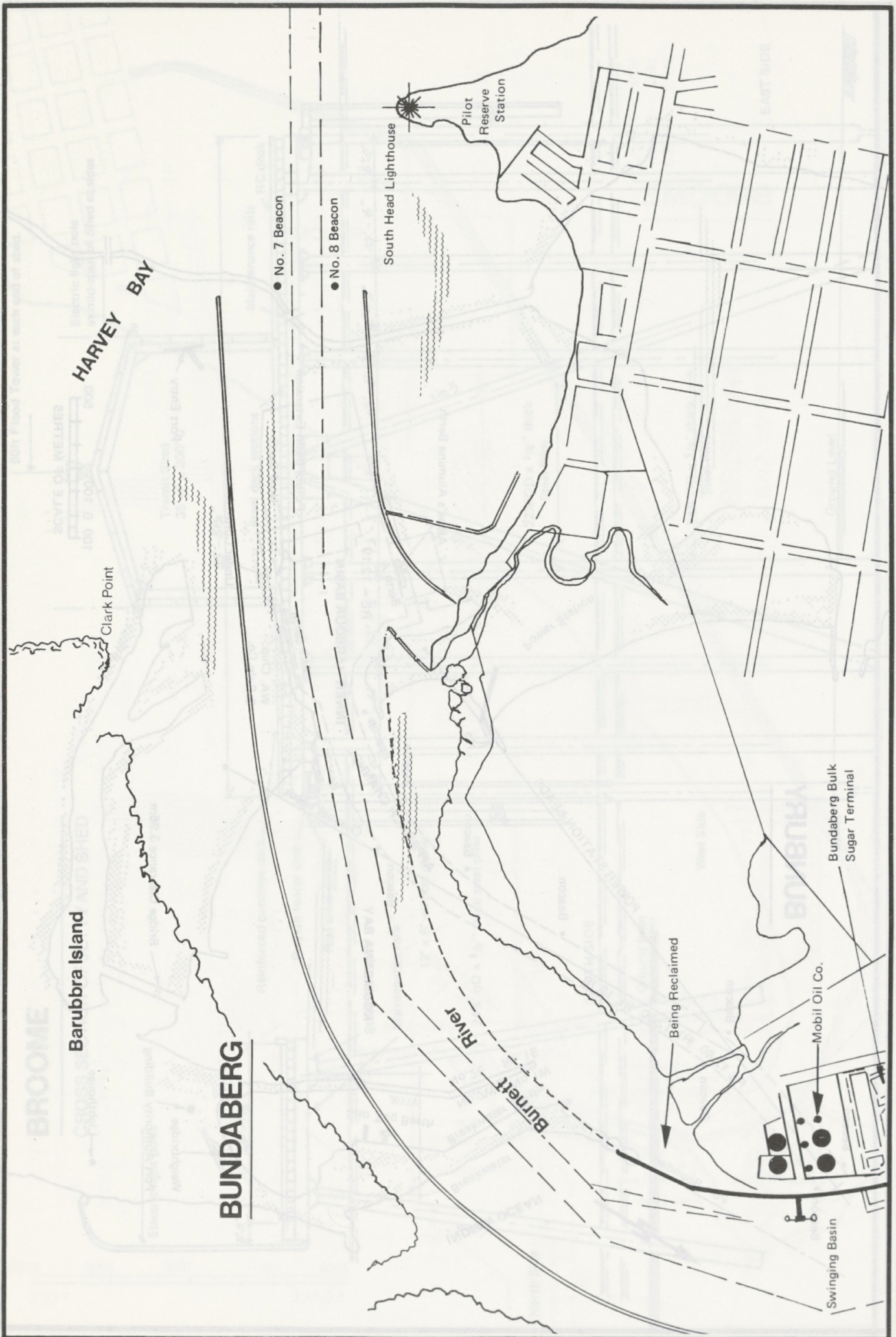


# BUNBURY

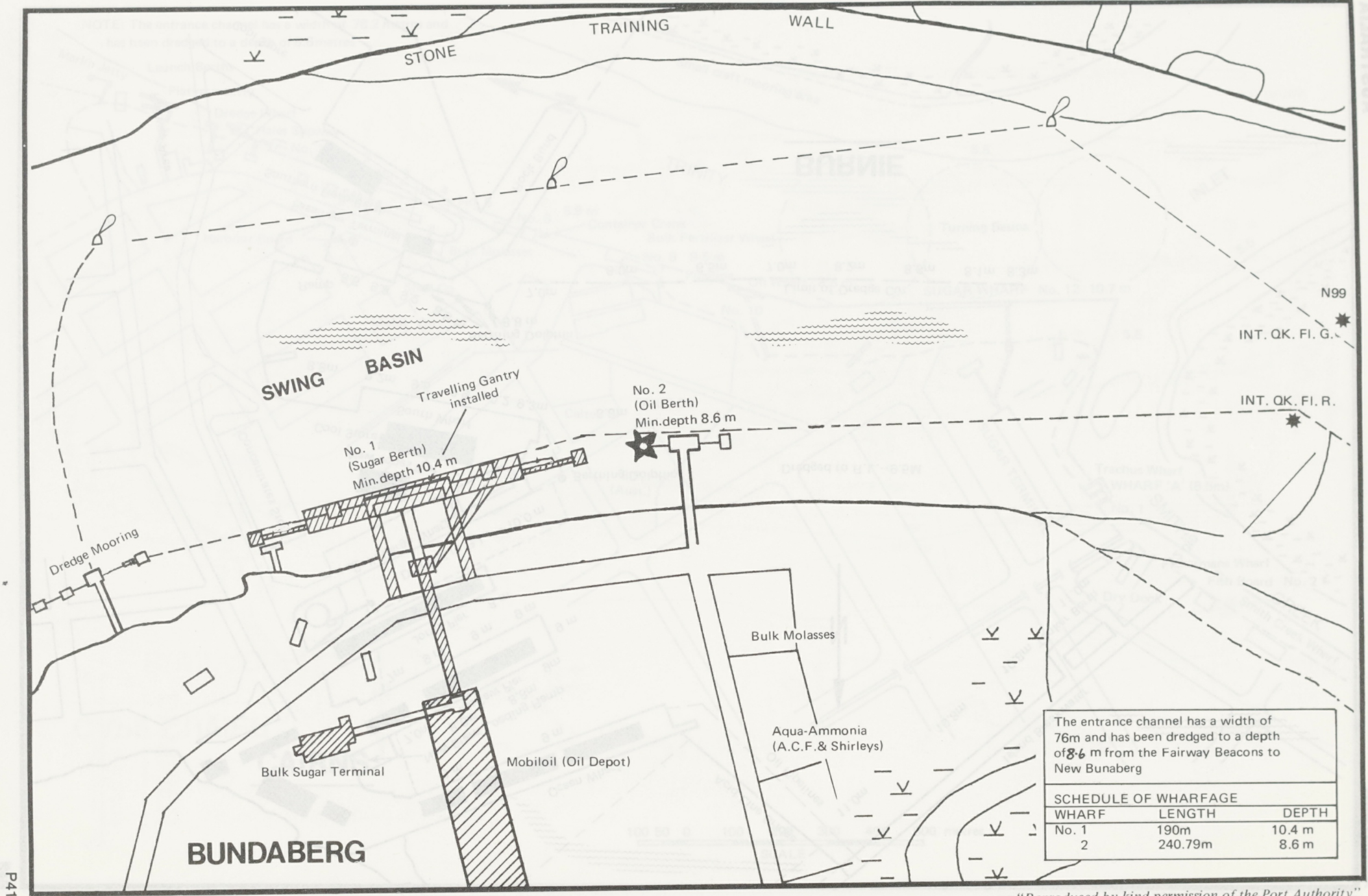


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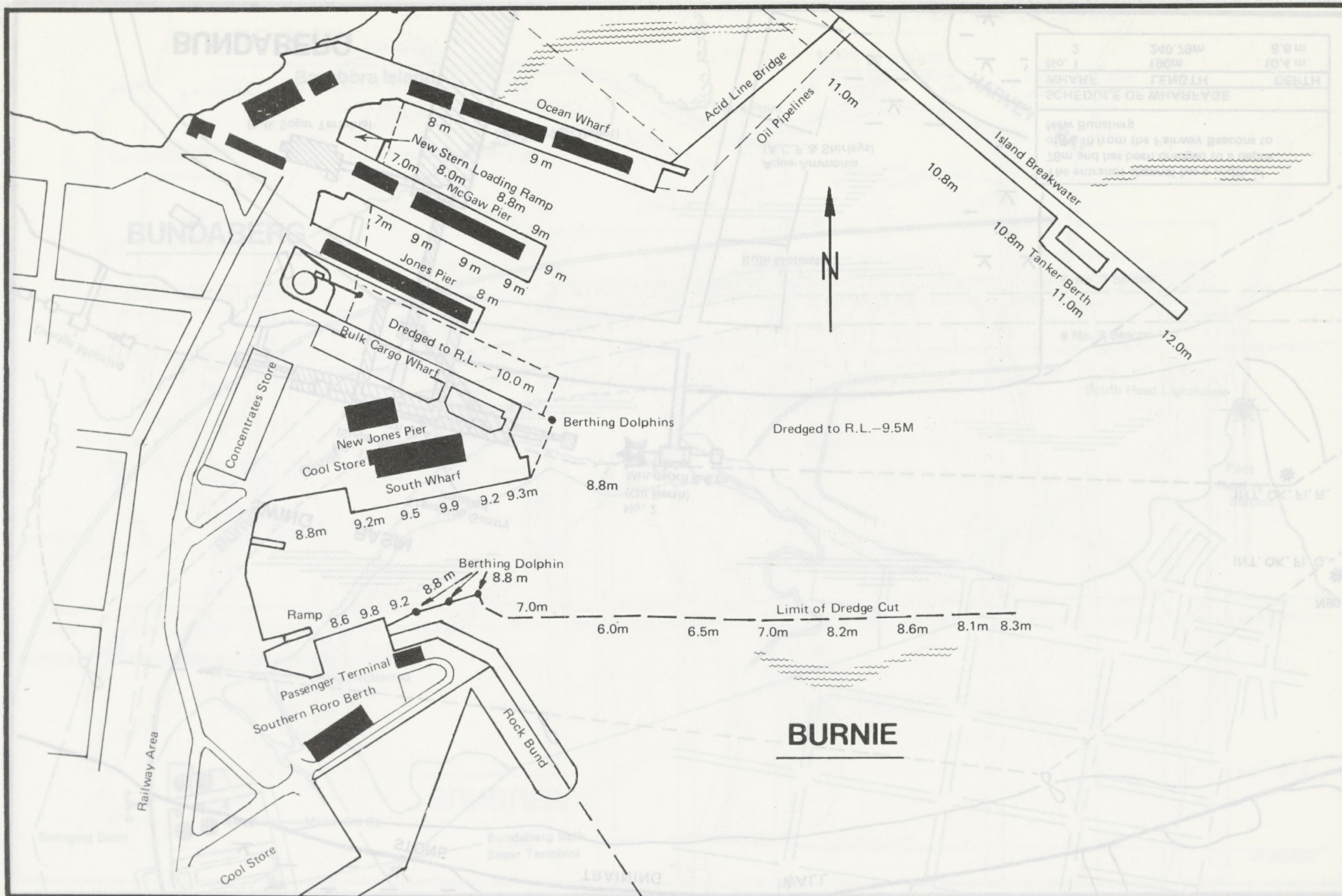




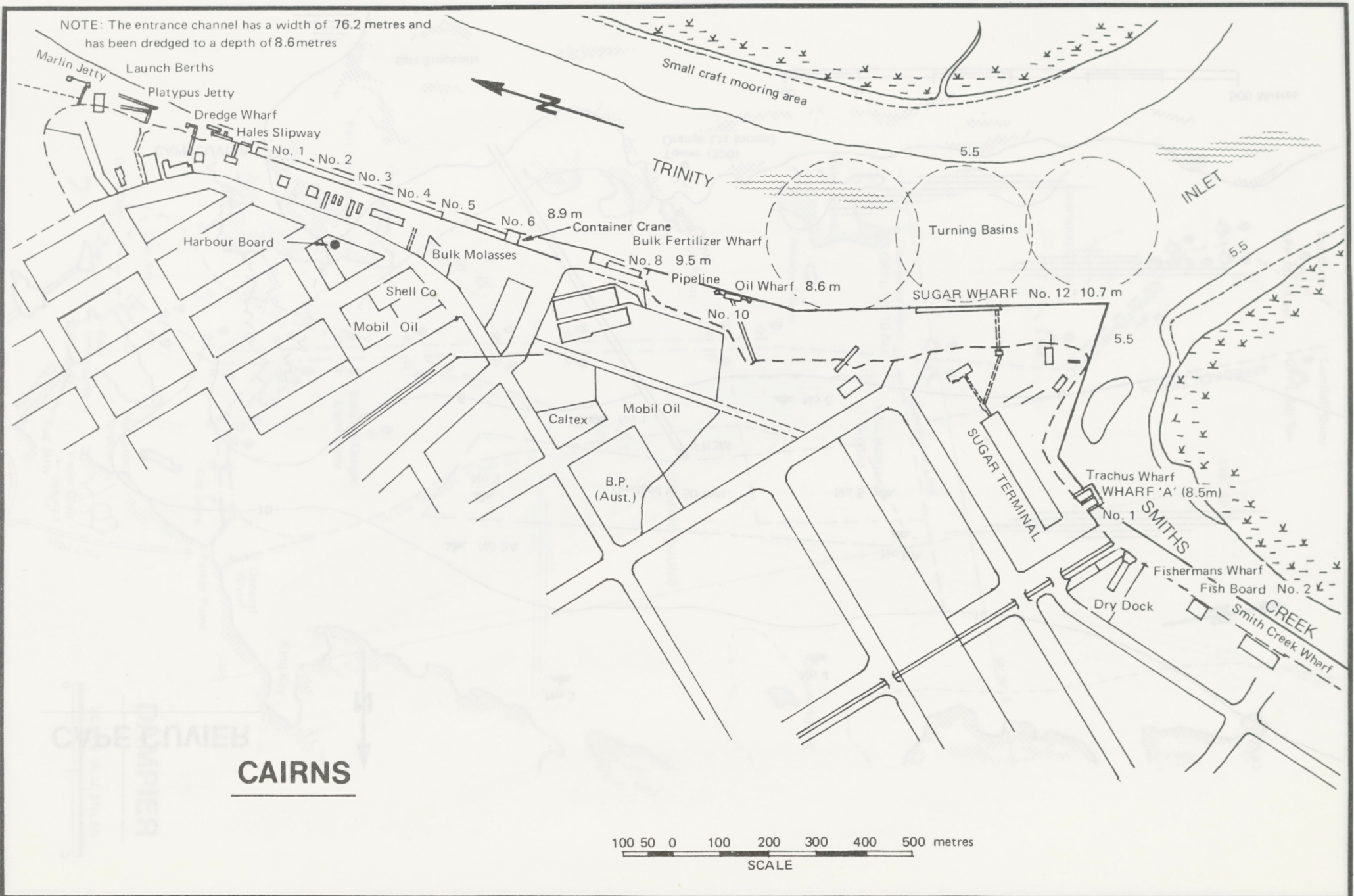
The entrance channel has a width of 76m and has been dredged to a depth of 8.6 m from the Fairway Beacons to New Bunaberg

SCHEDULE OF WHARFAGE		
WHARF	LENGTH	DEPTH
No. 1	190m	10.4 m
2	240.79m	8.6 m





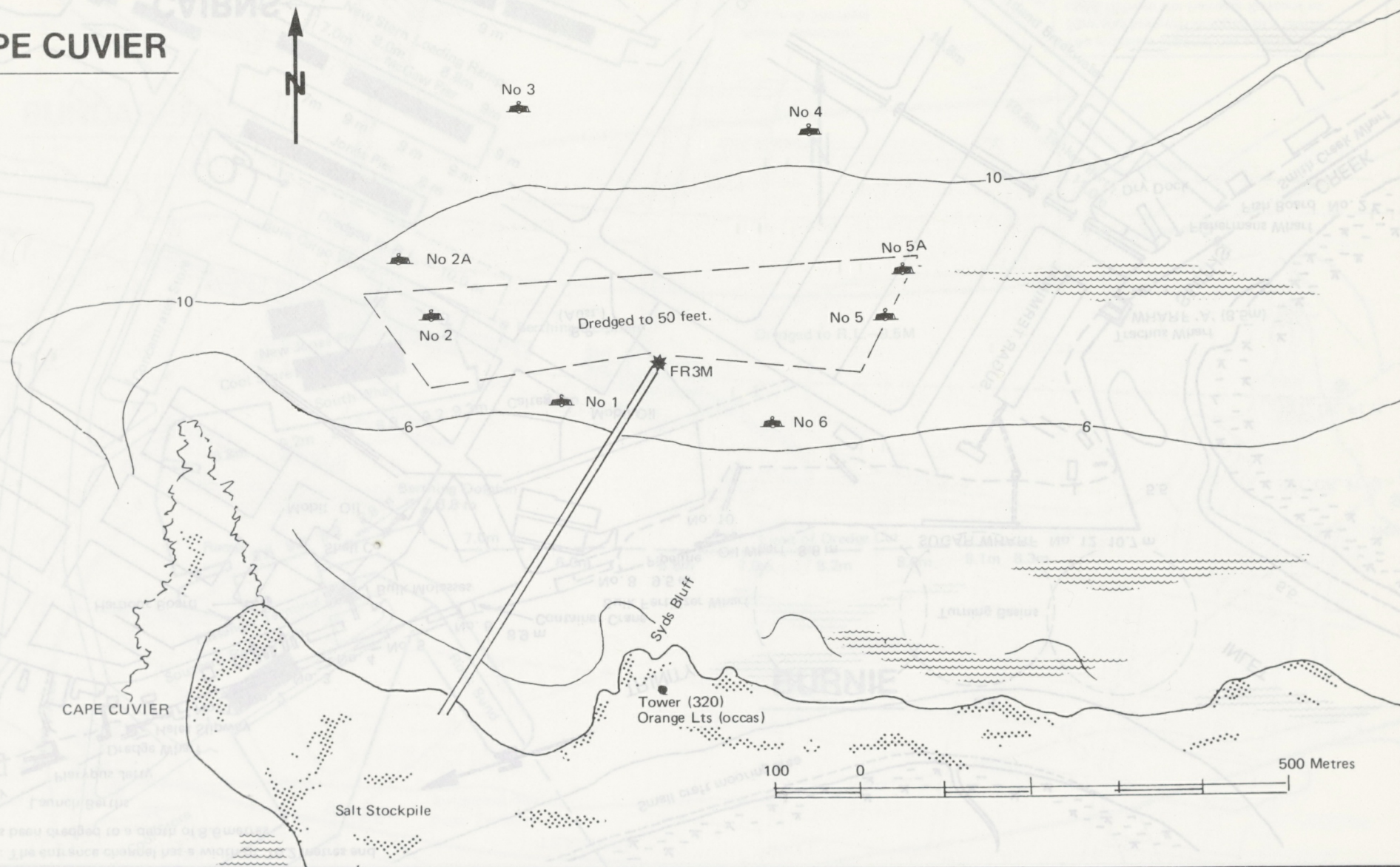




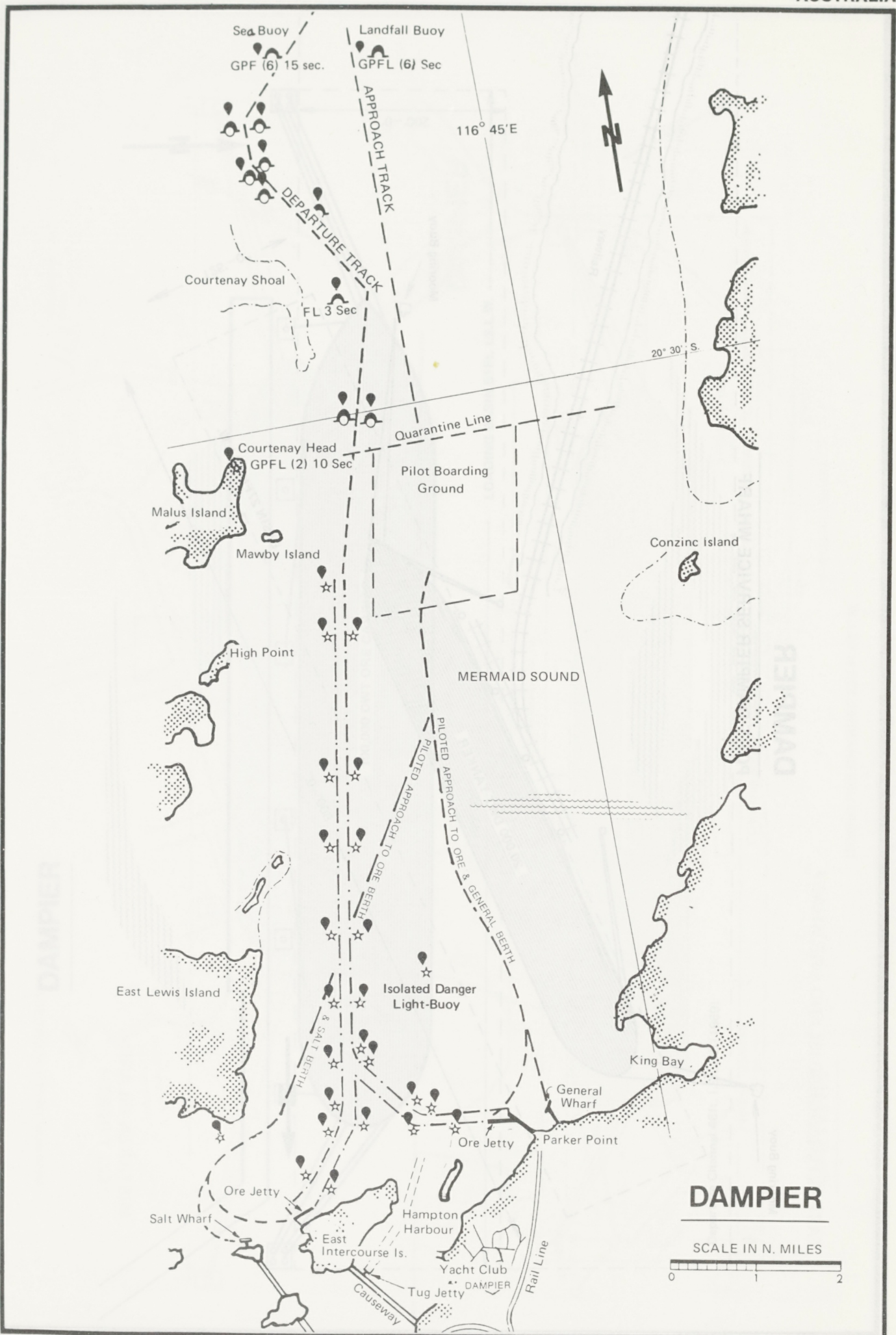
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# CAPE CUVIER





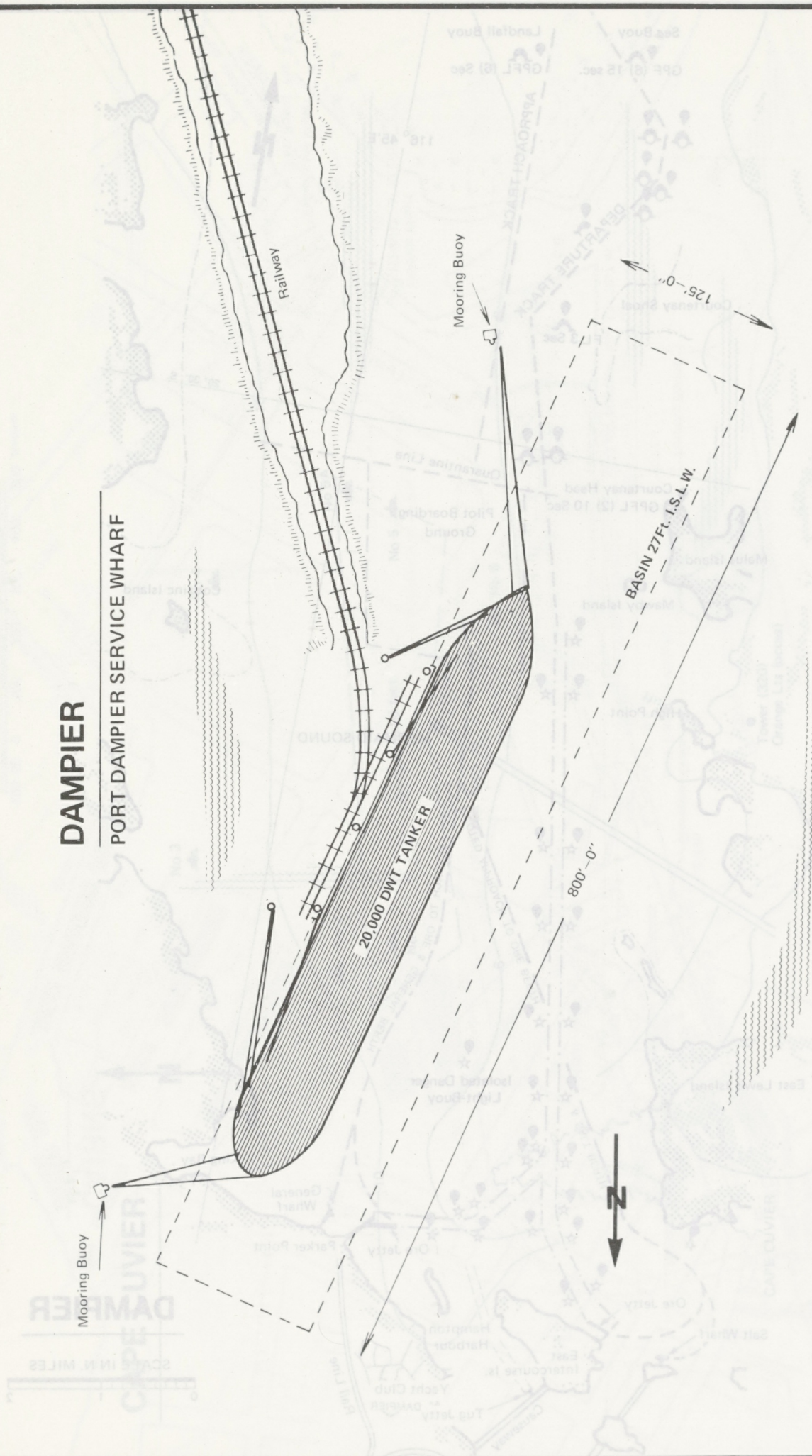


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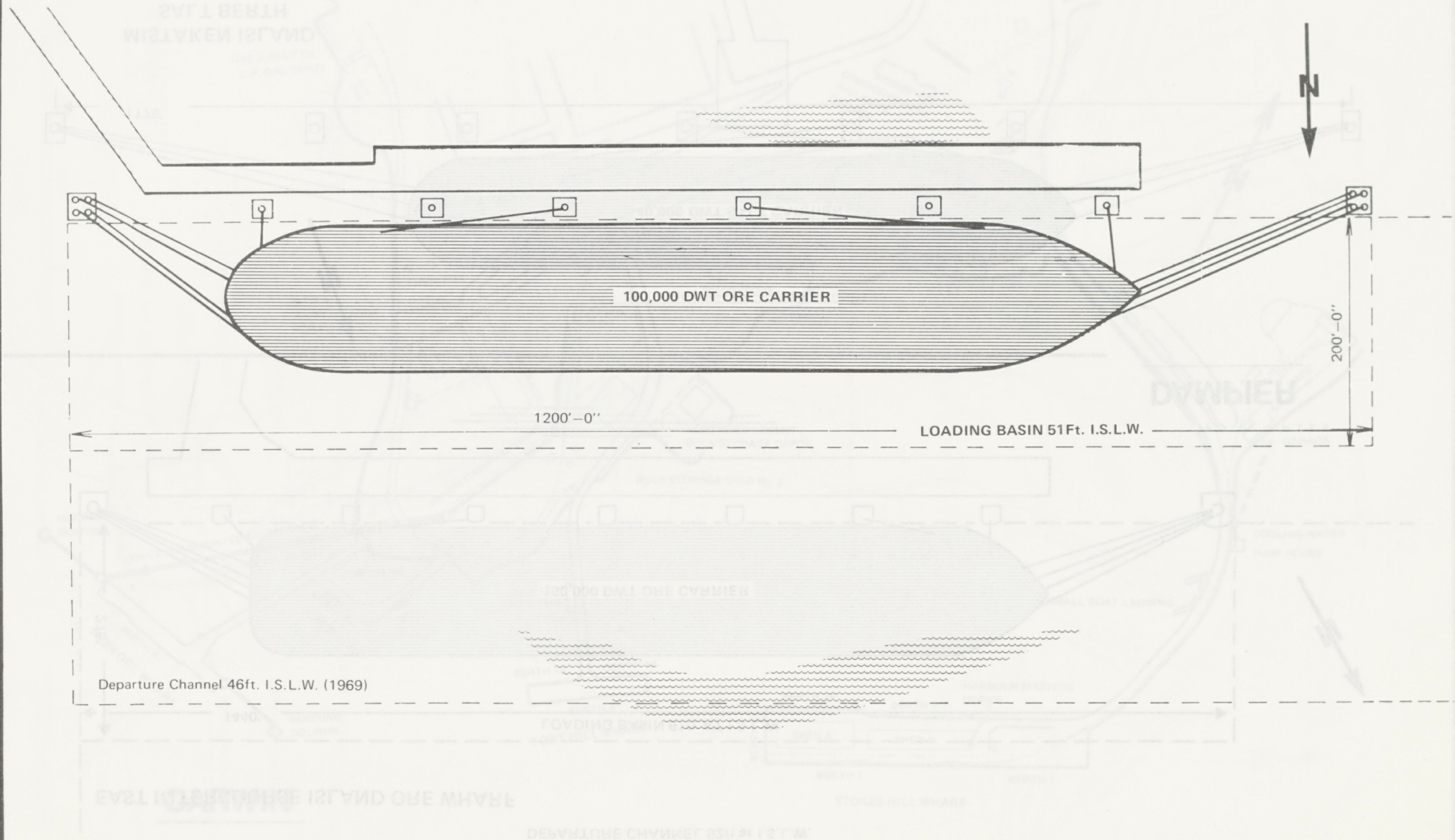
# DAMPIER

## PORT DAMPIER SERVICE WHARF





# DAMPIER

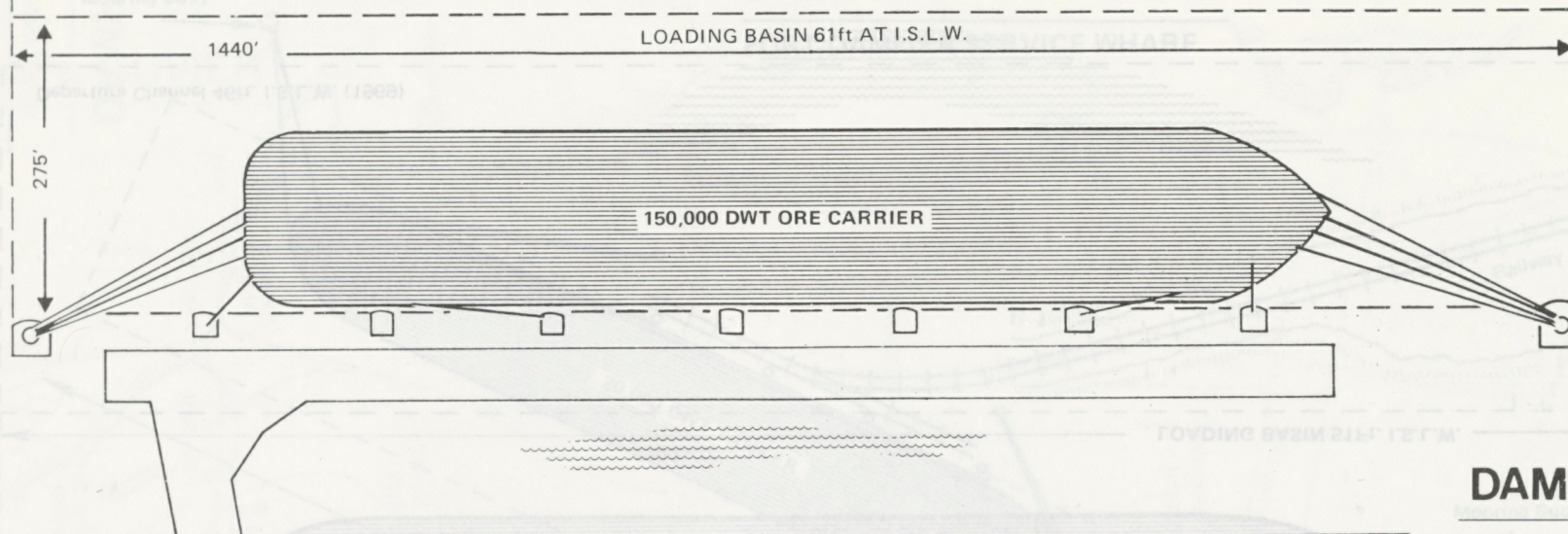
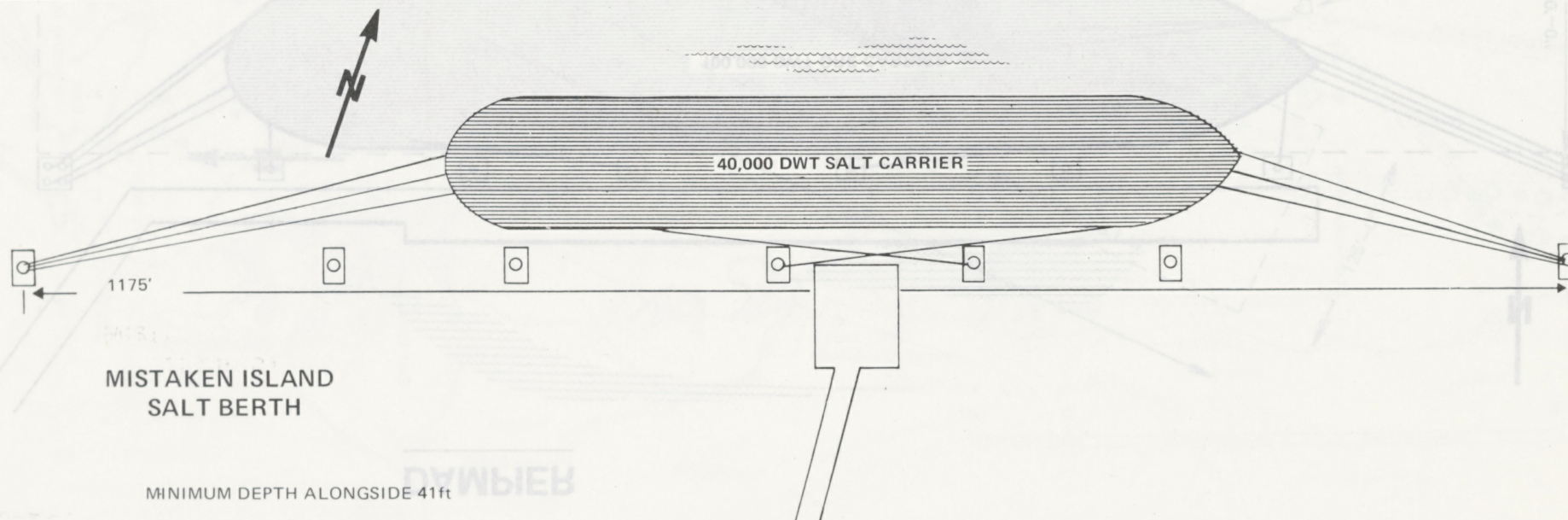


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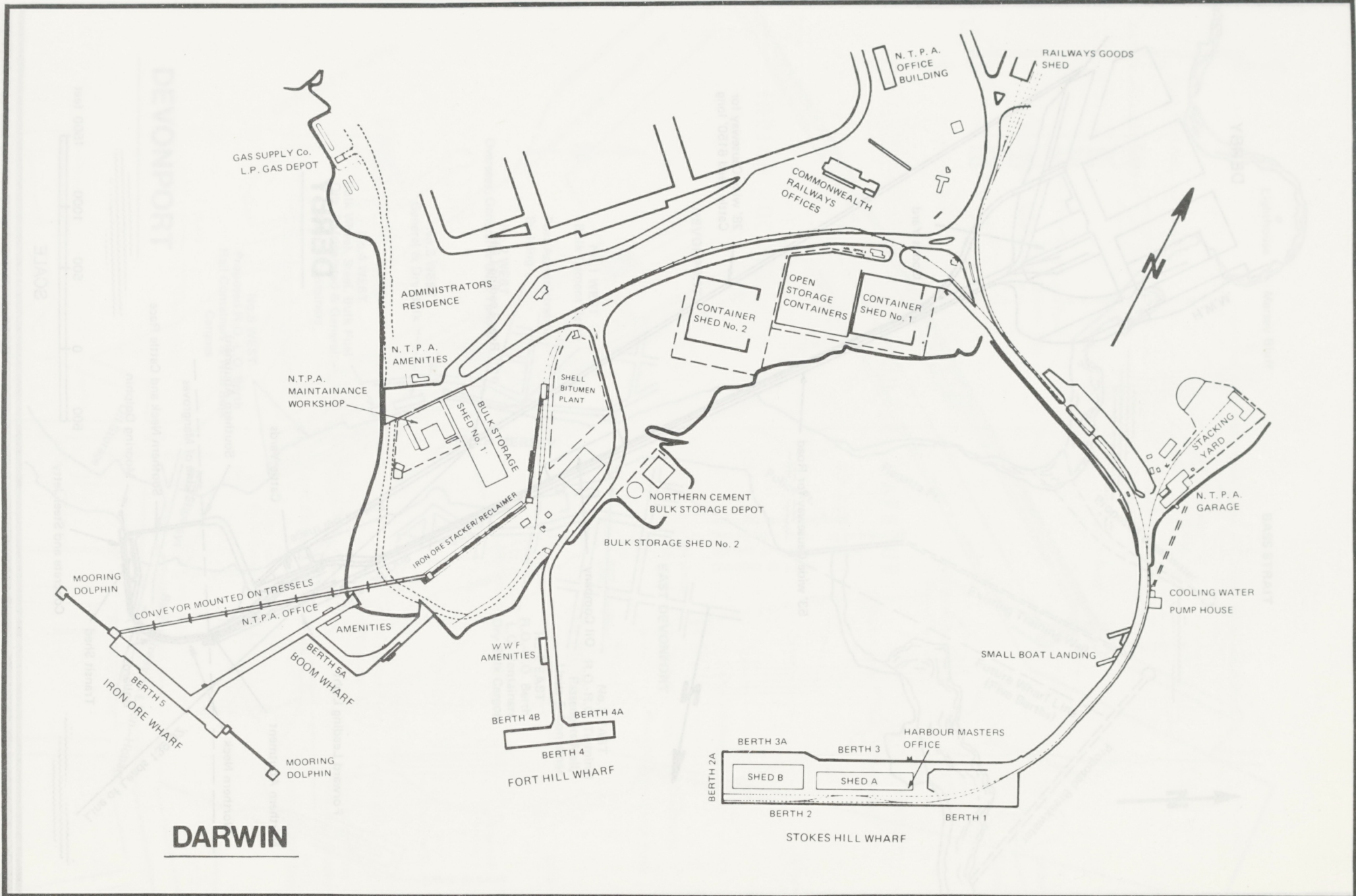


DEPARTURE CHANNEL 52ft at I.S.L.W.

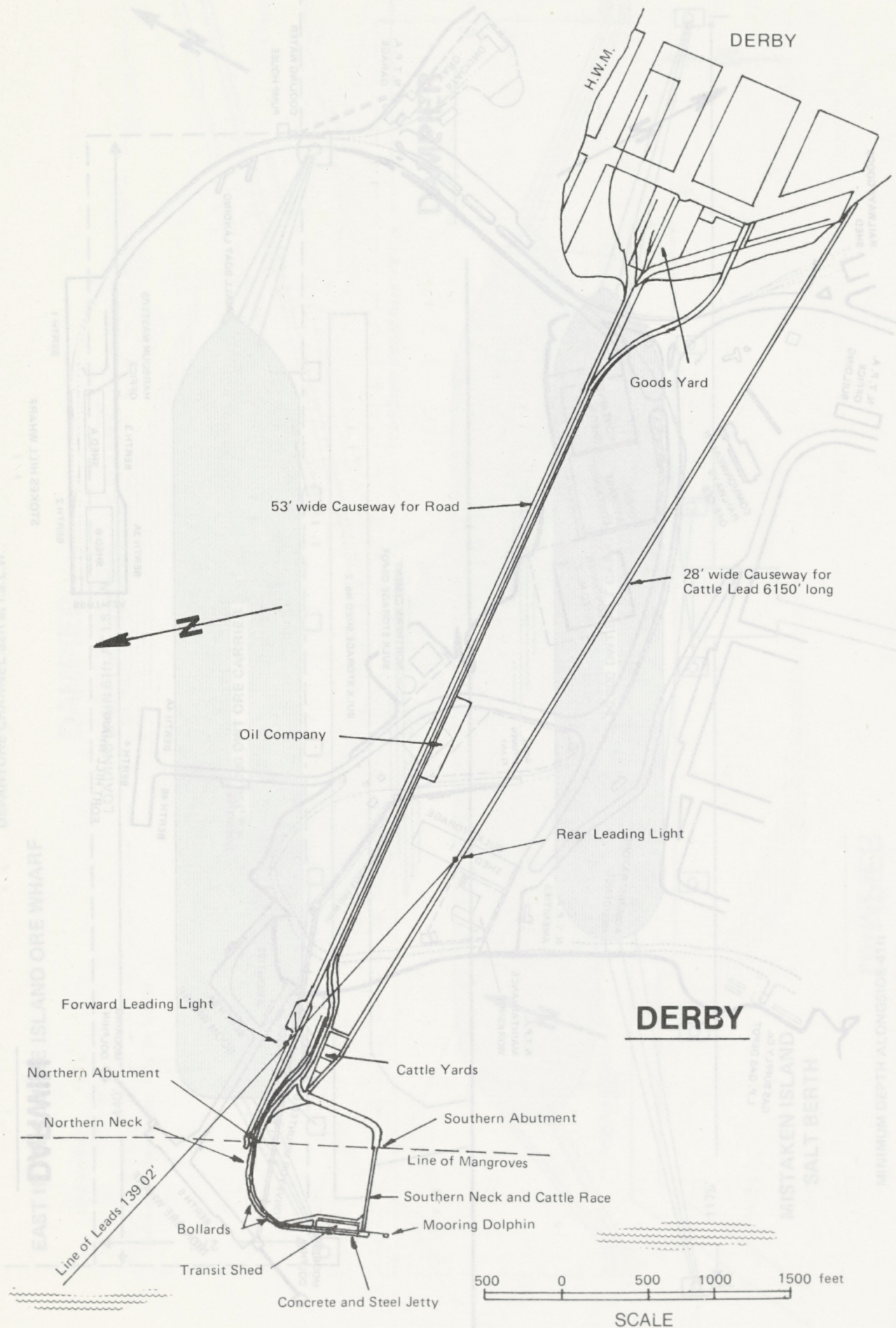
## EAST INTERCOURSE ISLAND ORE WHARF

DAMPIER

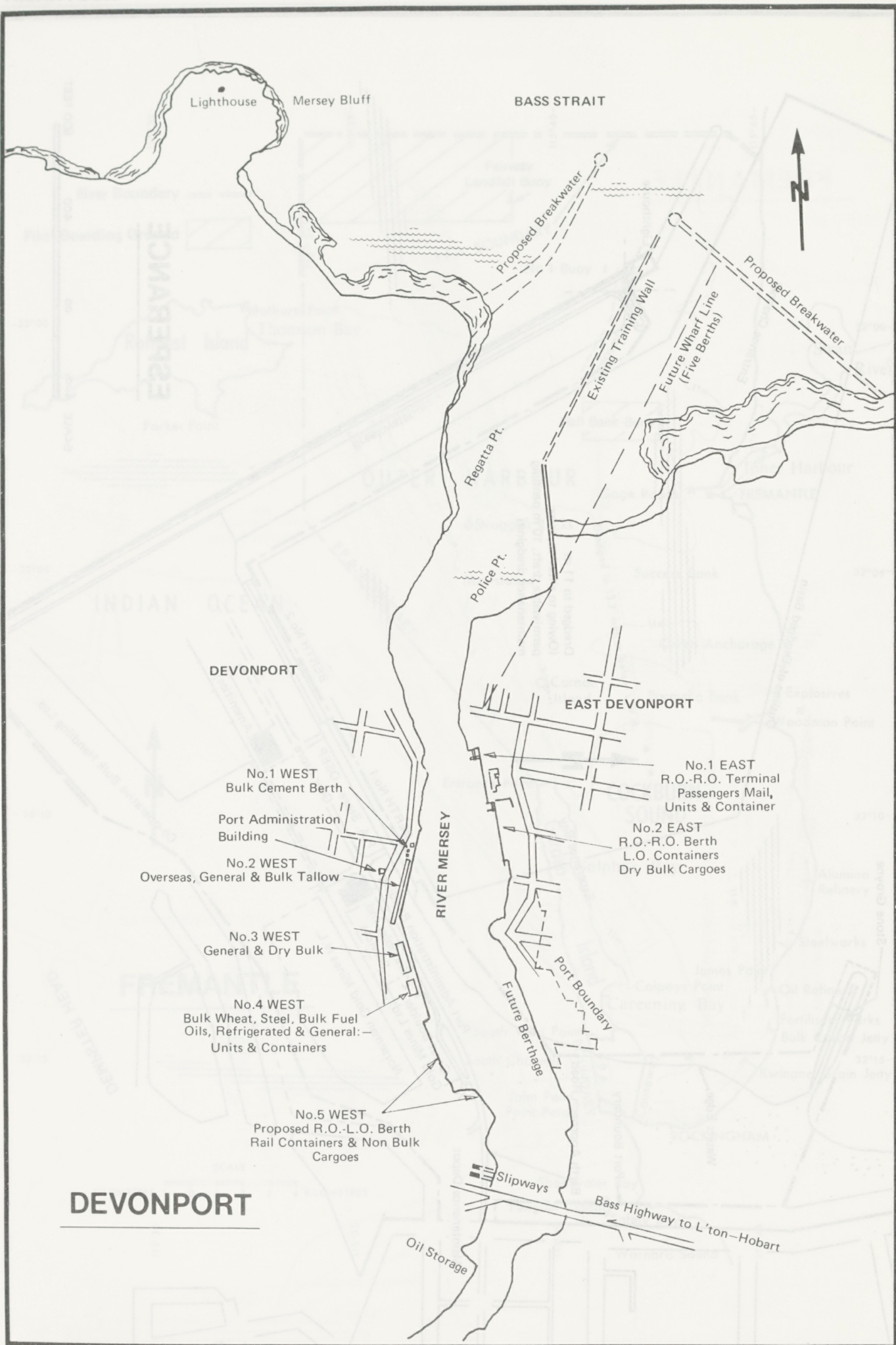






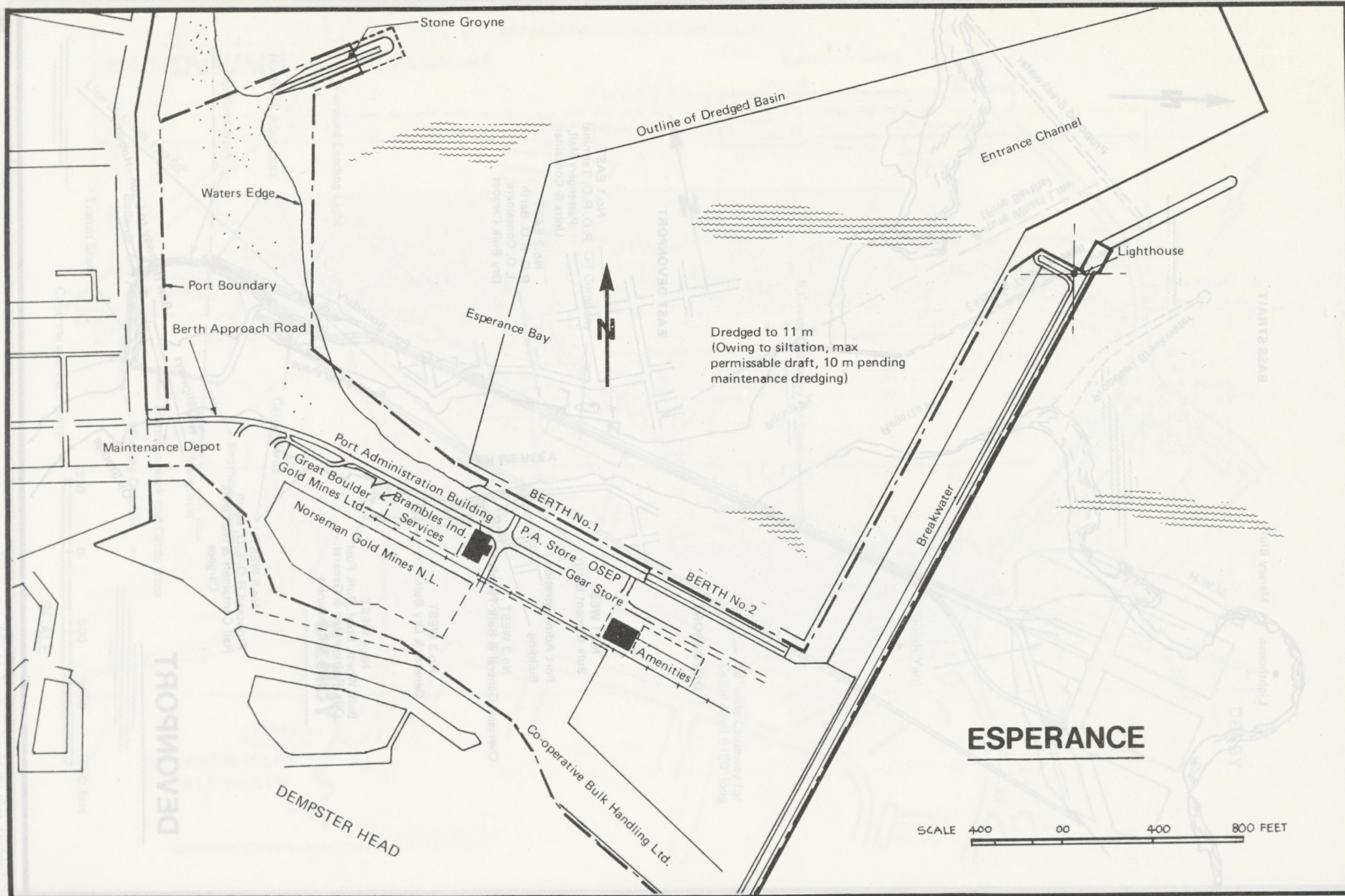




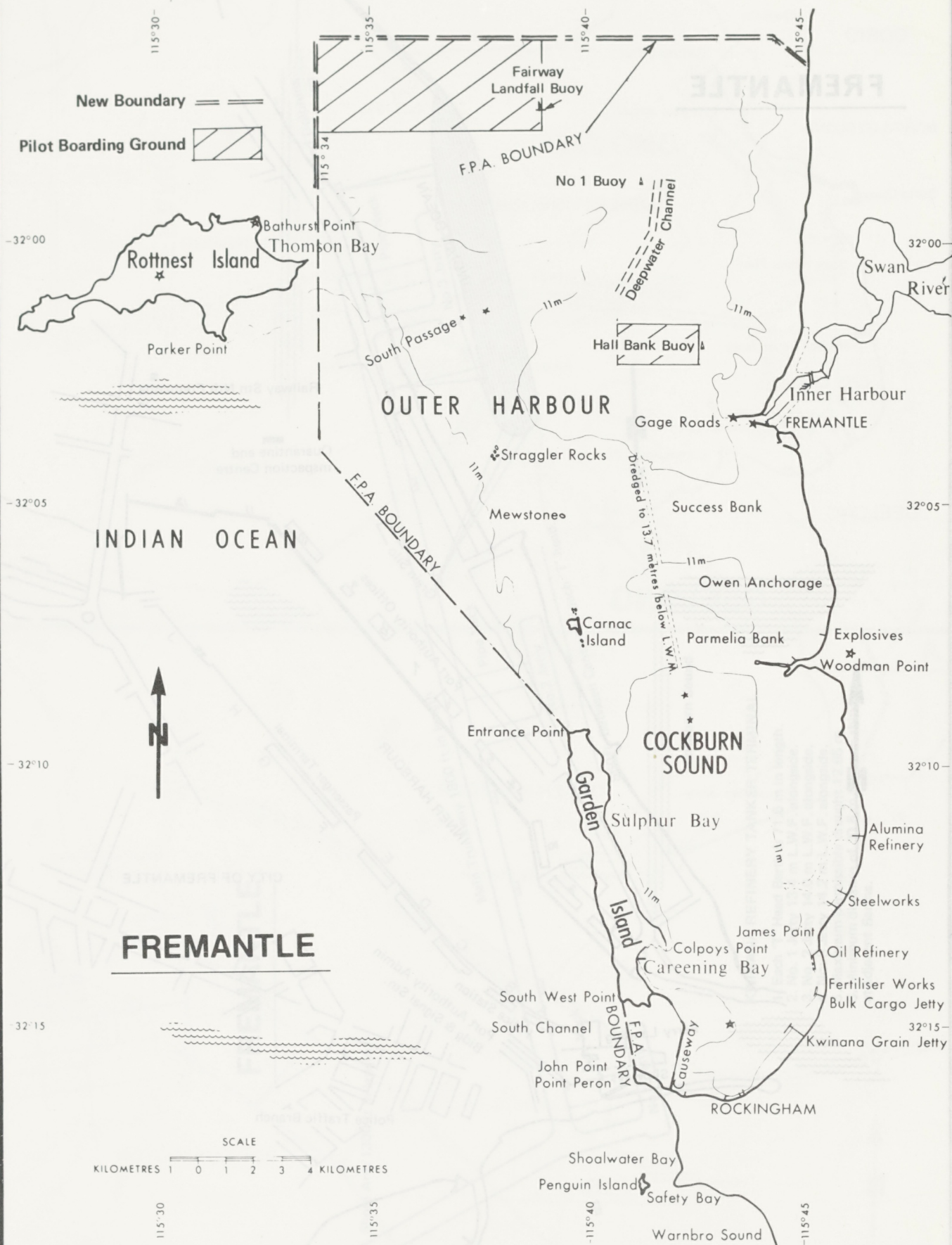


# DEVONPORT



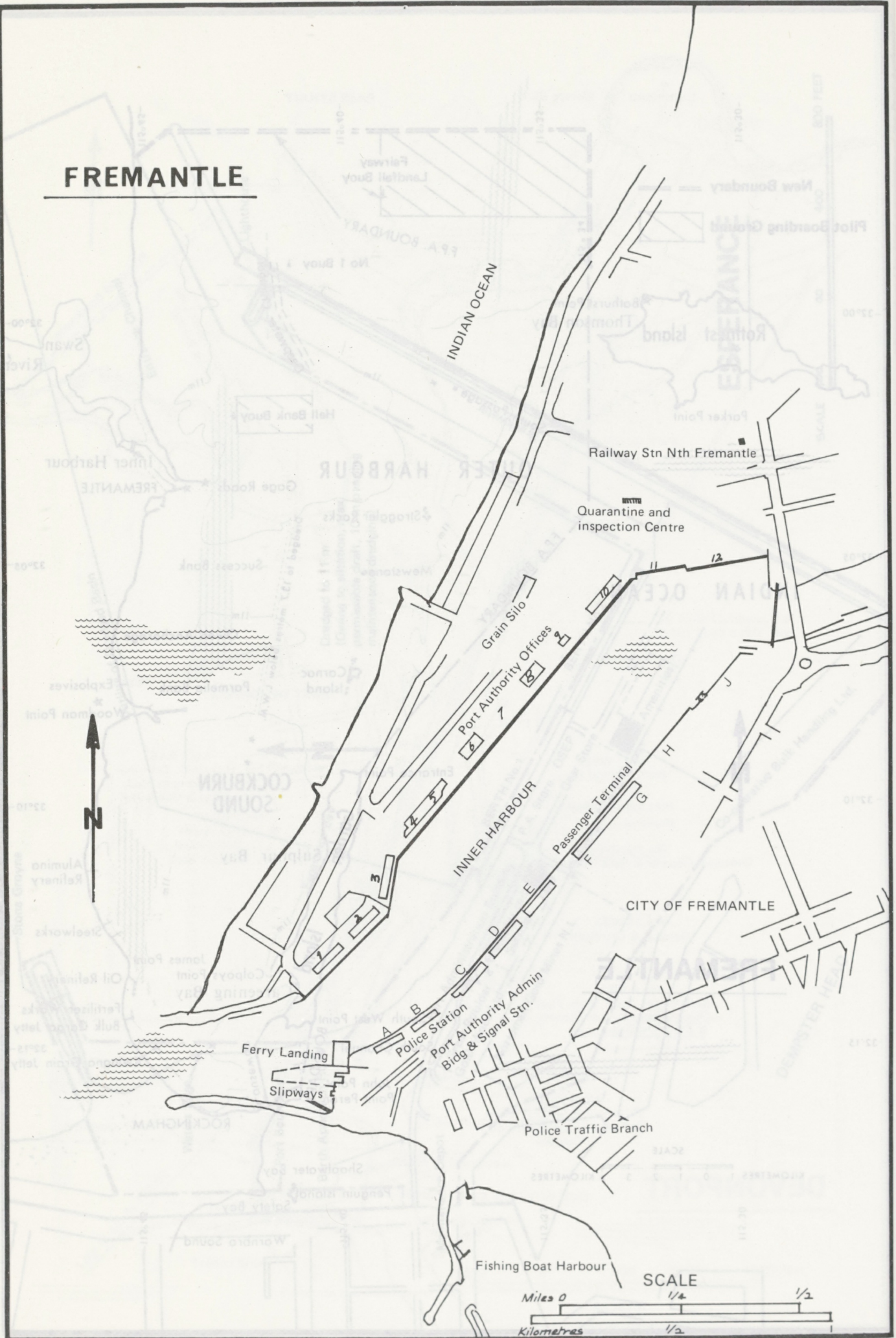






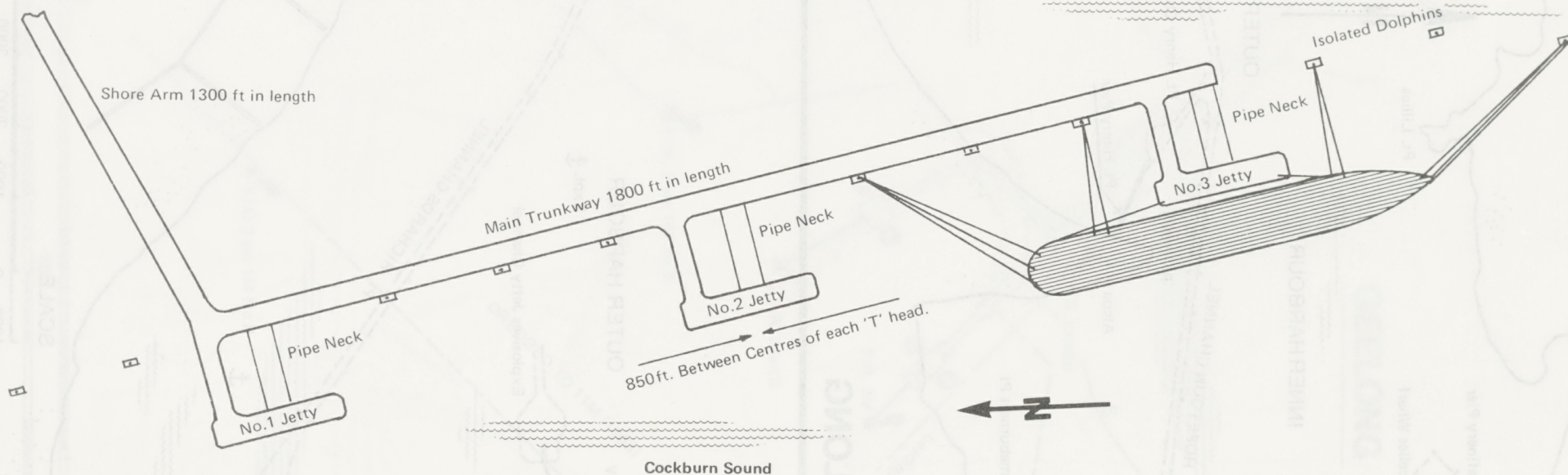


# FREMANTLE





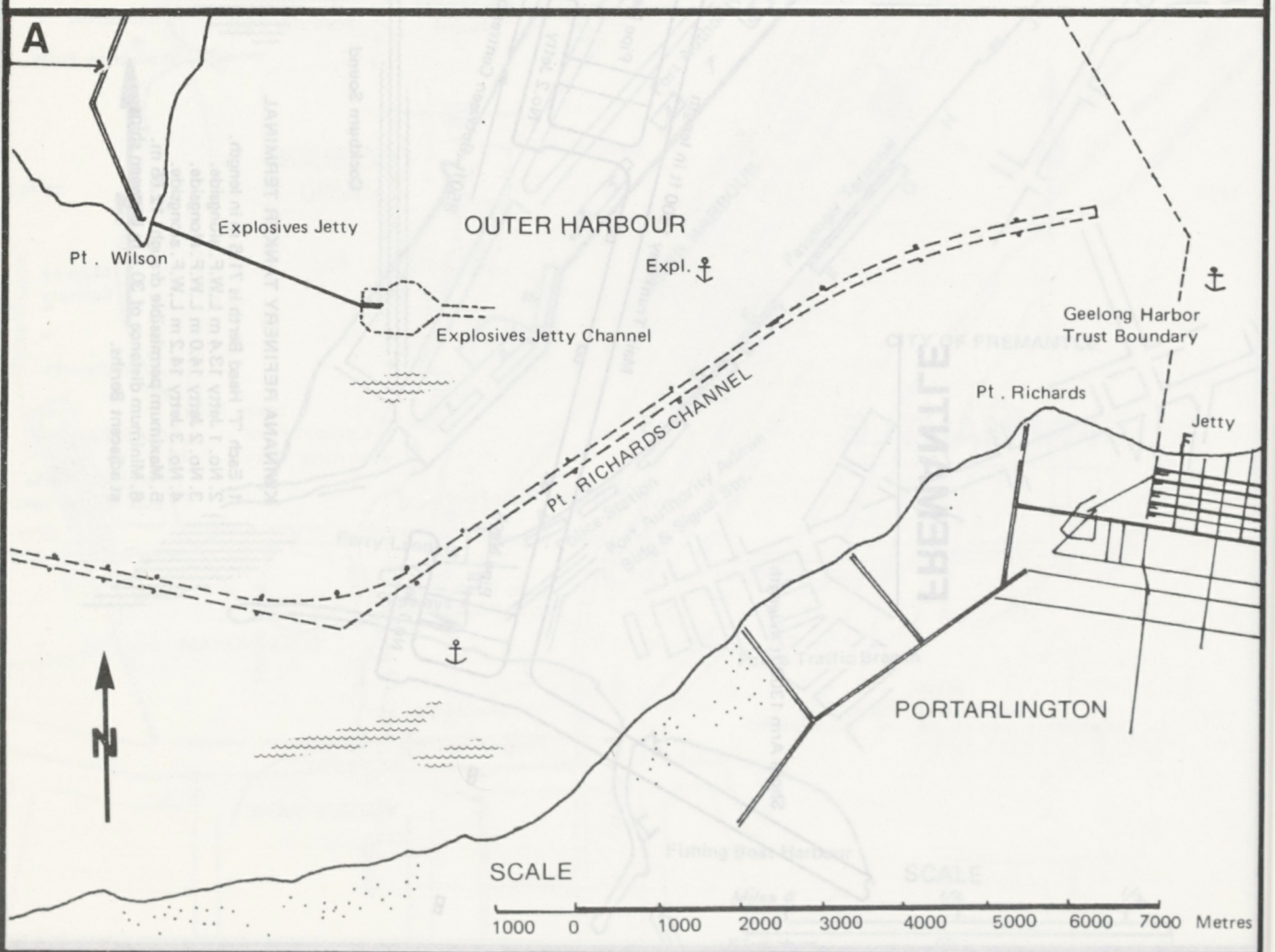
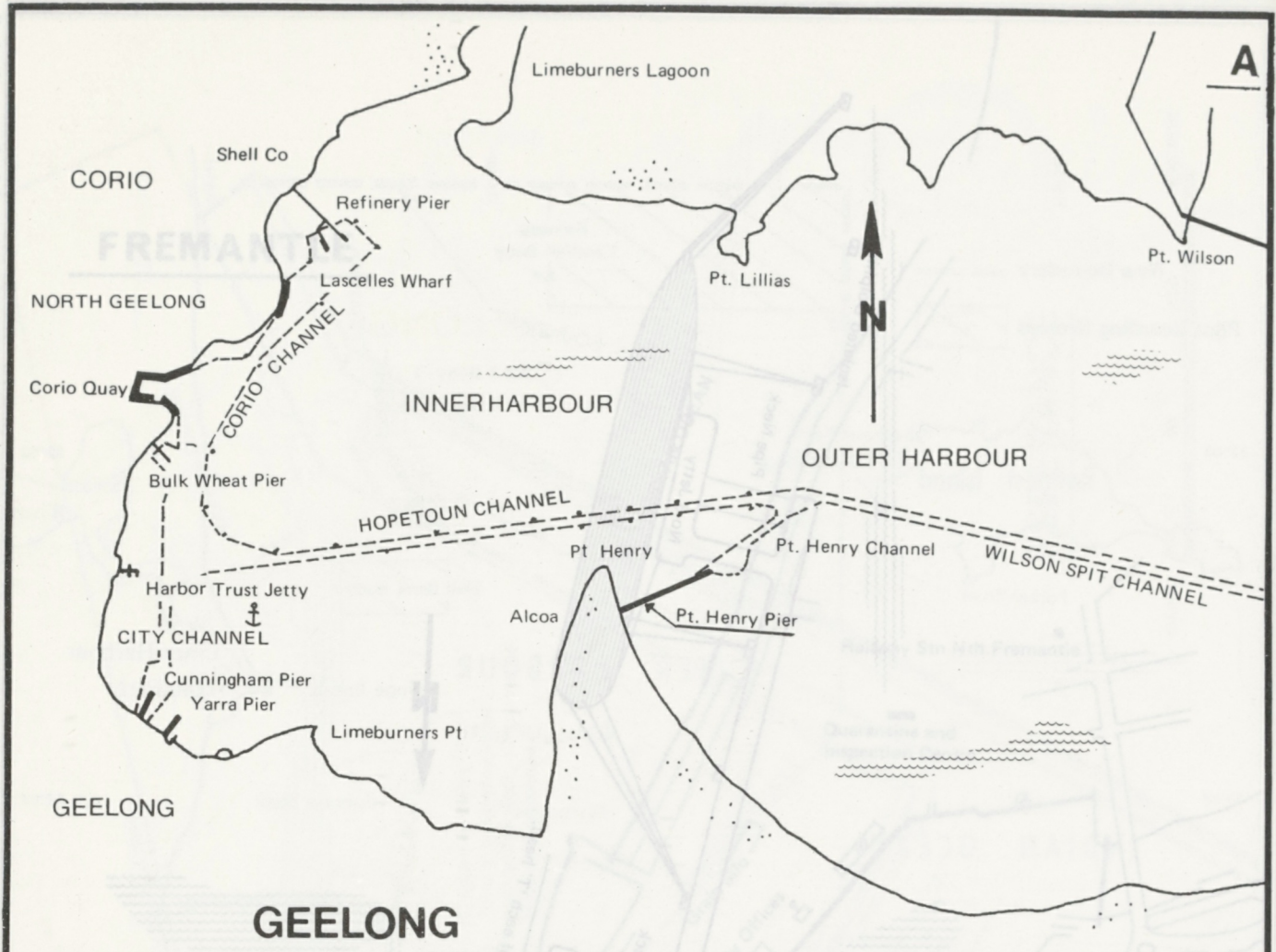
# FREMANTLE



## KWINANA REFINERY TANKER TERMINAL

1. Each 'T' Head Berth is 71.6 m in length.
2. No. 1 Jetty 13.4 m L.W.F. alongside.
3. No. 2 Jetty 14.0 m L.W.F. alongside.
4. No. 3 Jetty 14.2 m L.W.F. alongside.
5. Maximum permissible draught 12.65 m.
6. Minimum distance of 30.5 m between ships at adjacent Berths.







BELEM (PARA)

Direction of shore line

Set  
Max. drift 1"

N

Wind &amp; sea direction

Port anchor

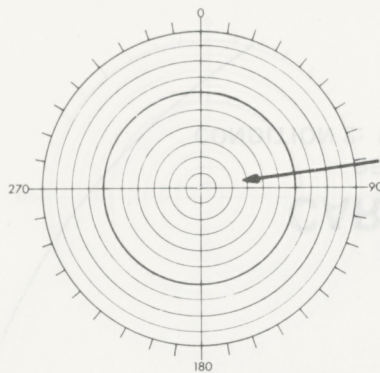
 $\pm 0.60^\circ/0.70^\circ$ 

Star'd anchor

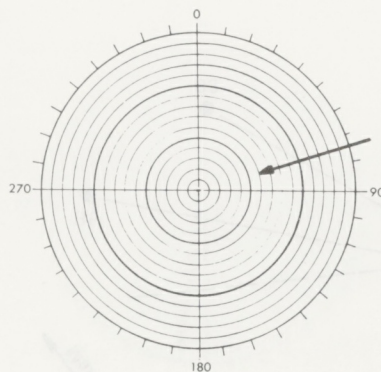
**CARMOPOLIS**BERTHING PLAN  
CONDITION 1: WIND & SEA FROM THE ENE

"D"

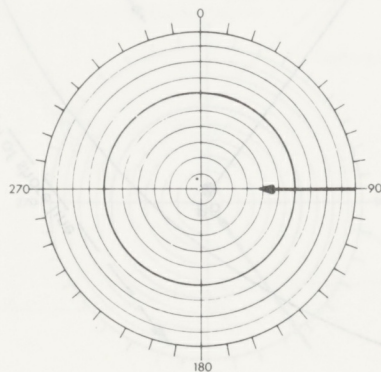




WINDS



SEA CURRENTS

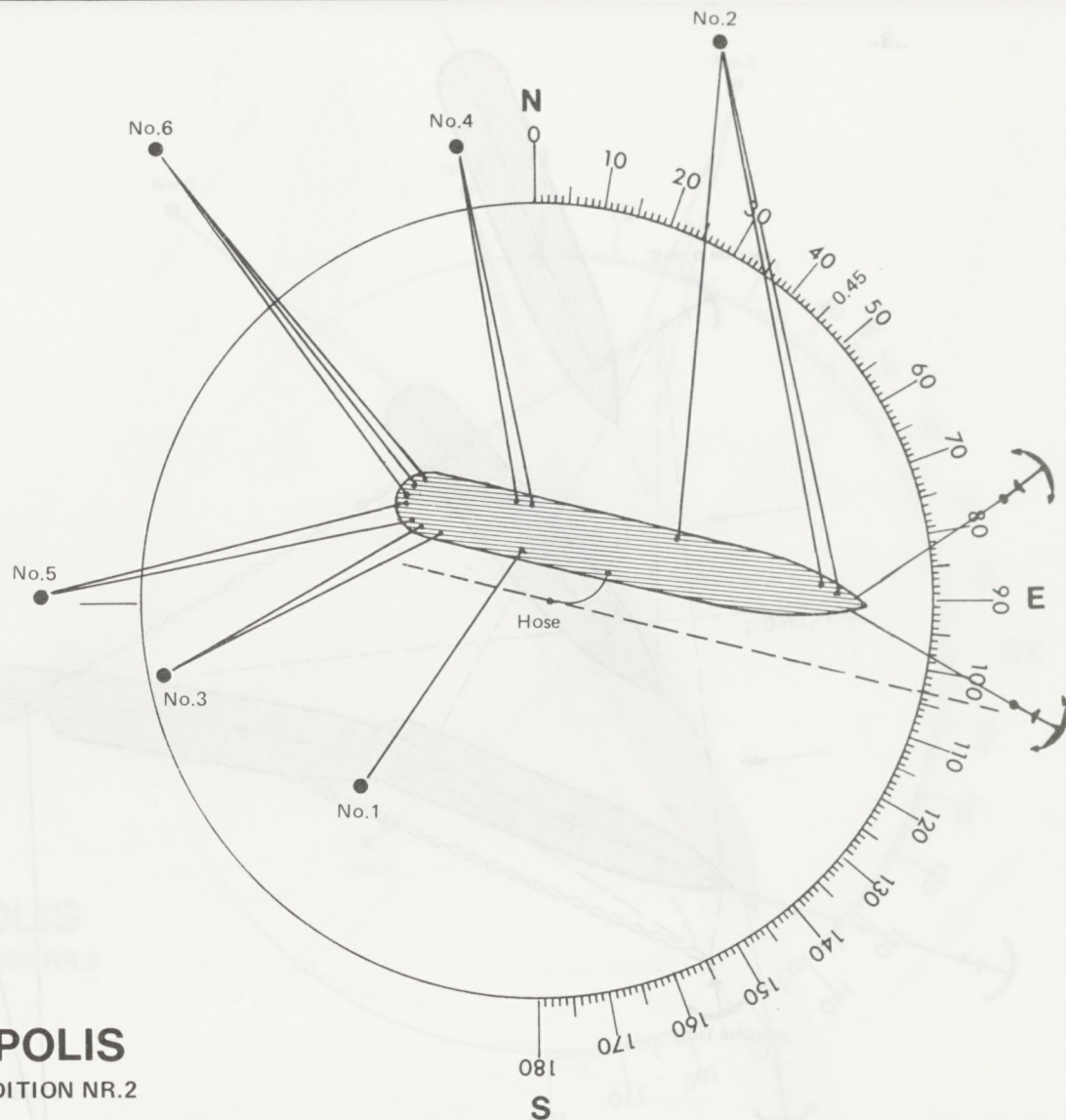


WAVES

Shore runs 035°

Lat. 11° 02' 95"

# **CARMOPOLIS** MOORING CONDITION NR.2

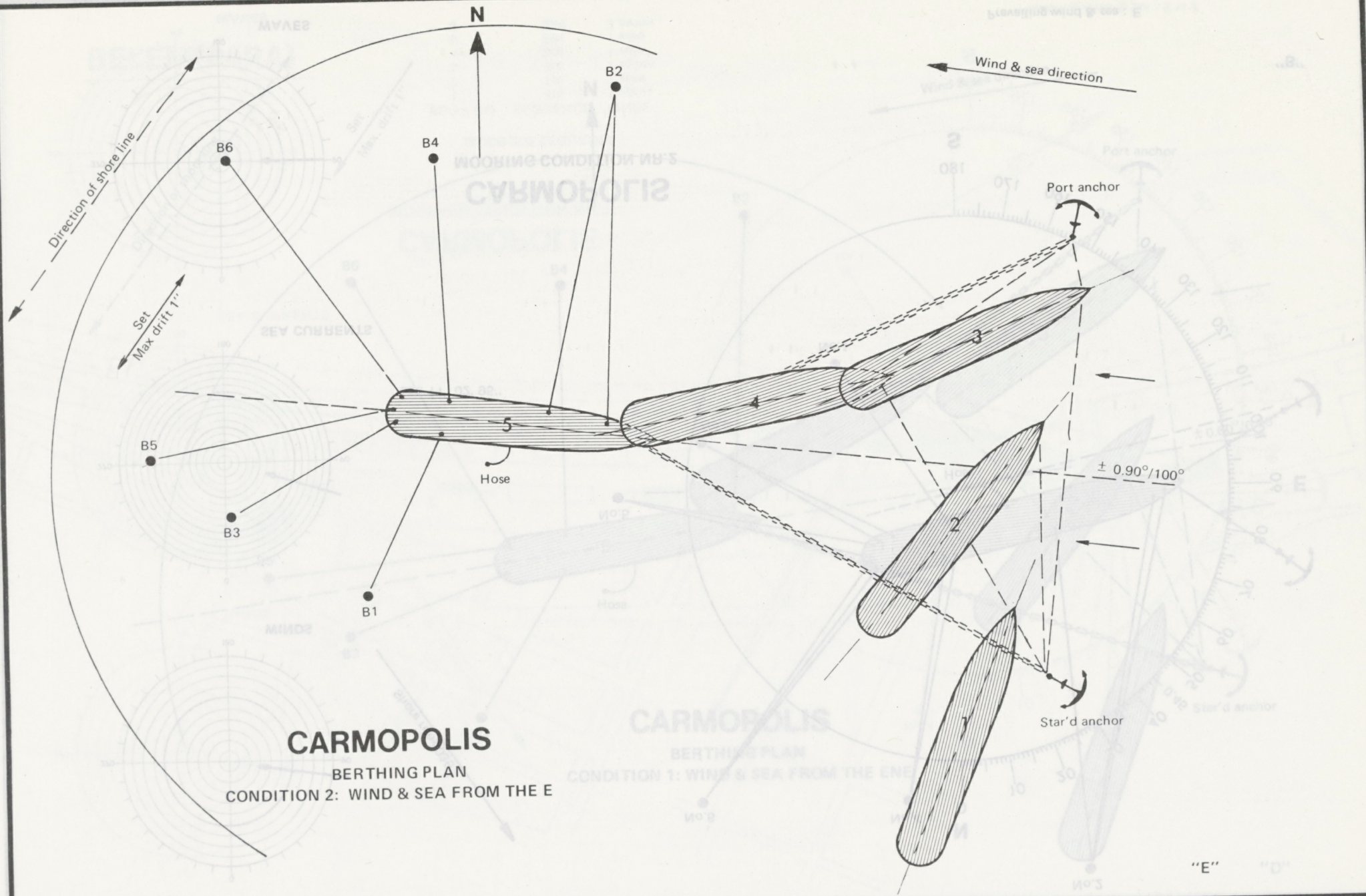


"B"

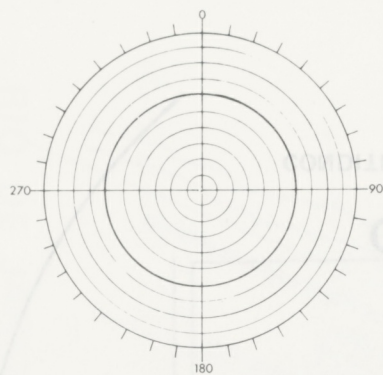
Prevailing wind & sea : E

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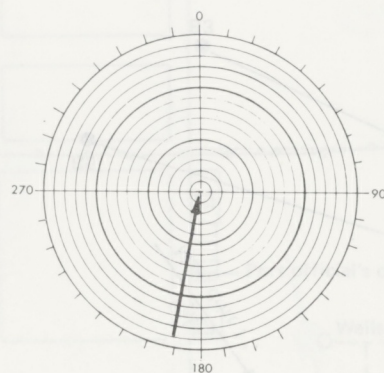




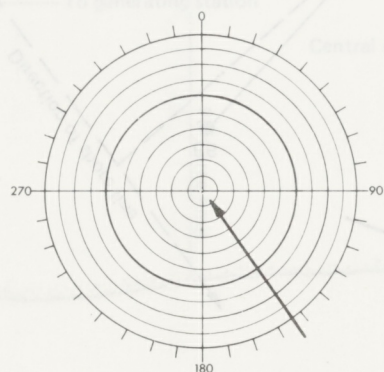




WINDS



SEA CURRENTS



WAVES

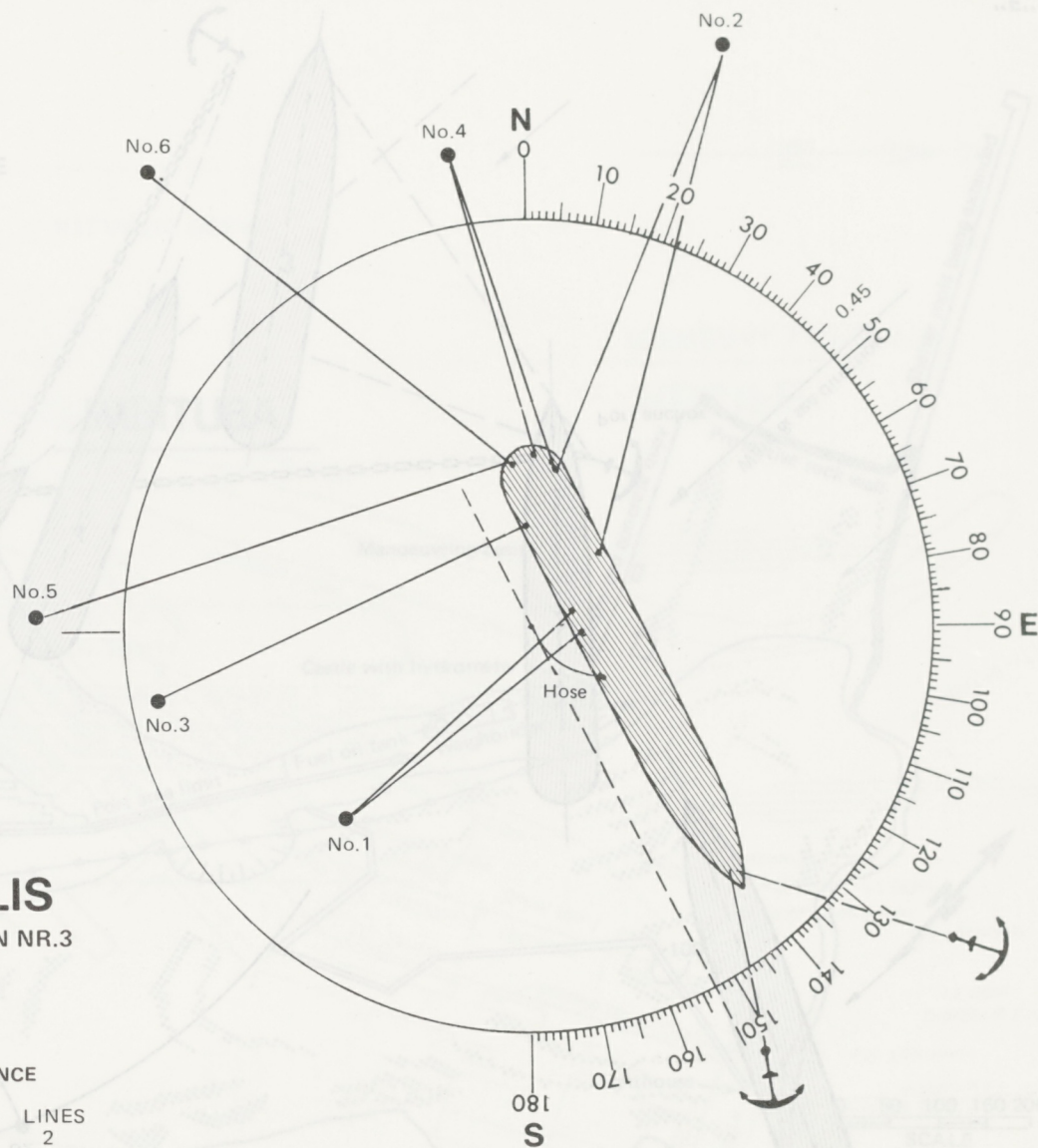
Shore runs 035°

## CARMOPOLIS

MOORING CONDITION NR.3

### MOORING SEQUENCE

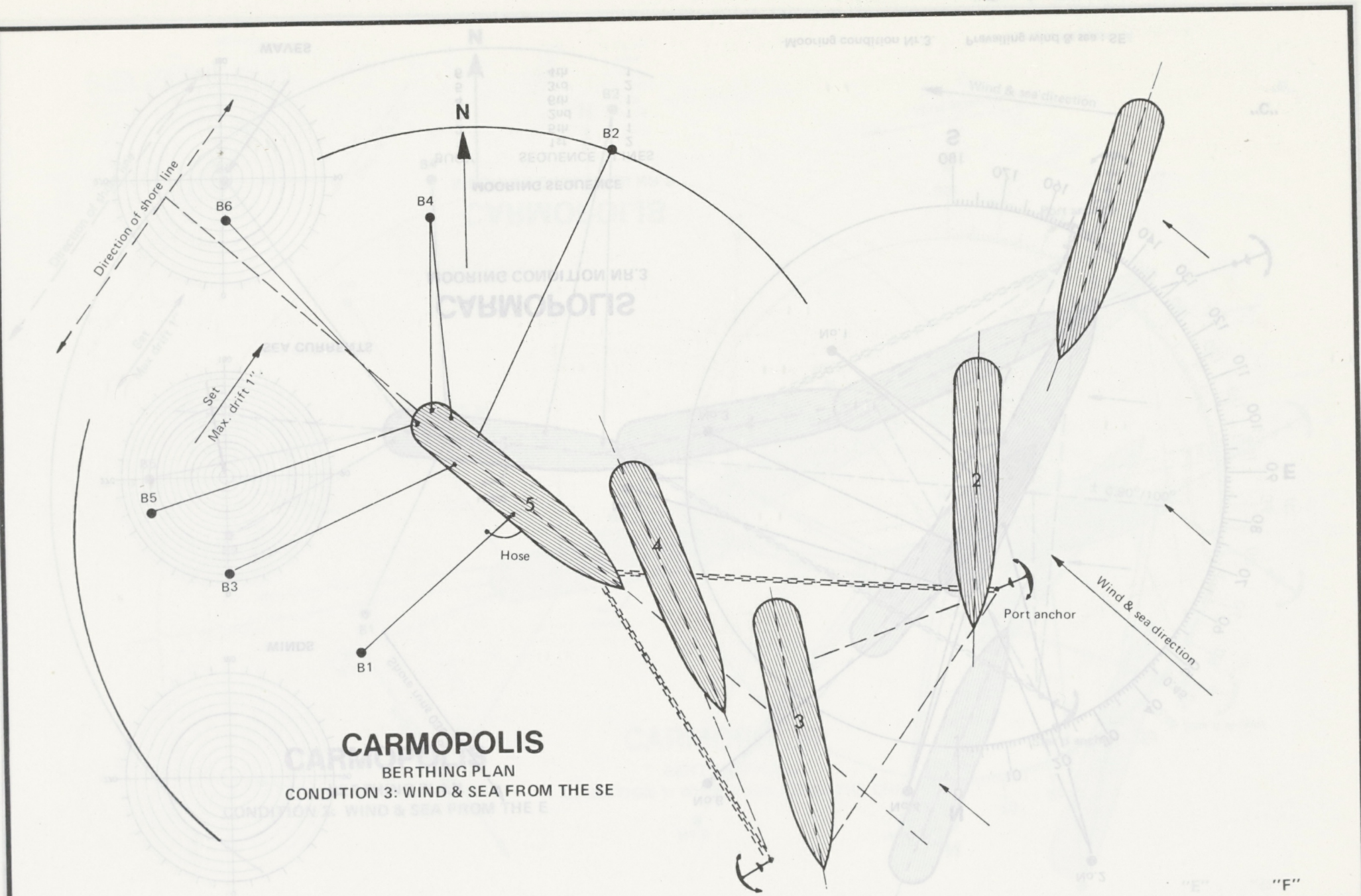
BUOY	SEQUENCE	LINES
1	1st	2
2	5th	1
3	2nd	1
4	6th	1
5	3rd	2
6	4th	1



Mooring condition Nr.3. Prevailing wind & sea : SE

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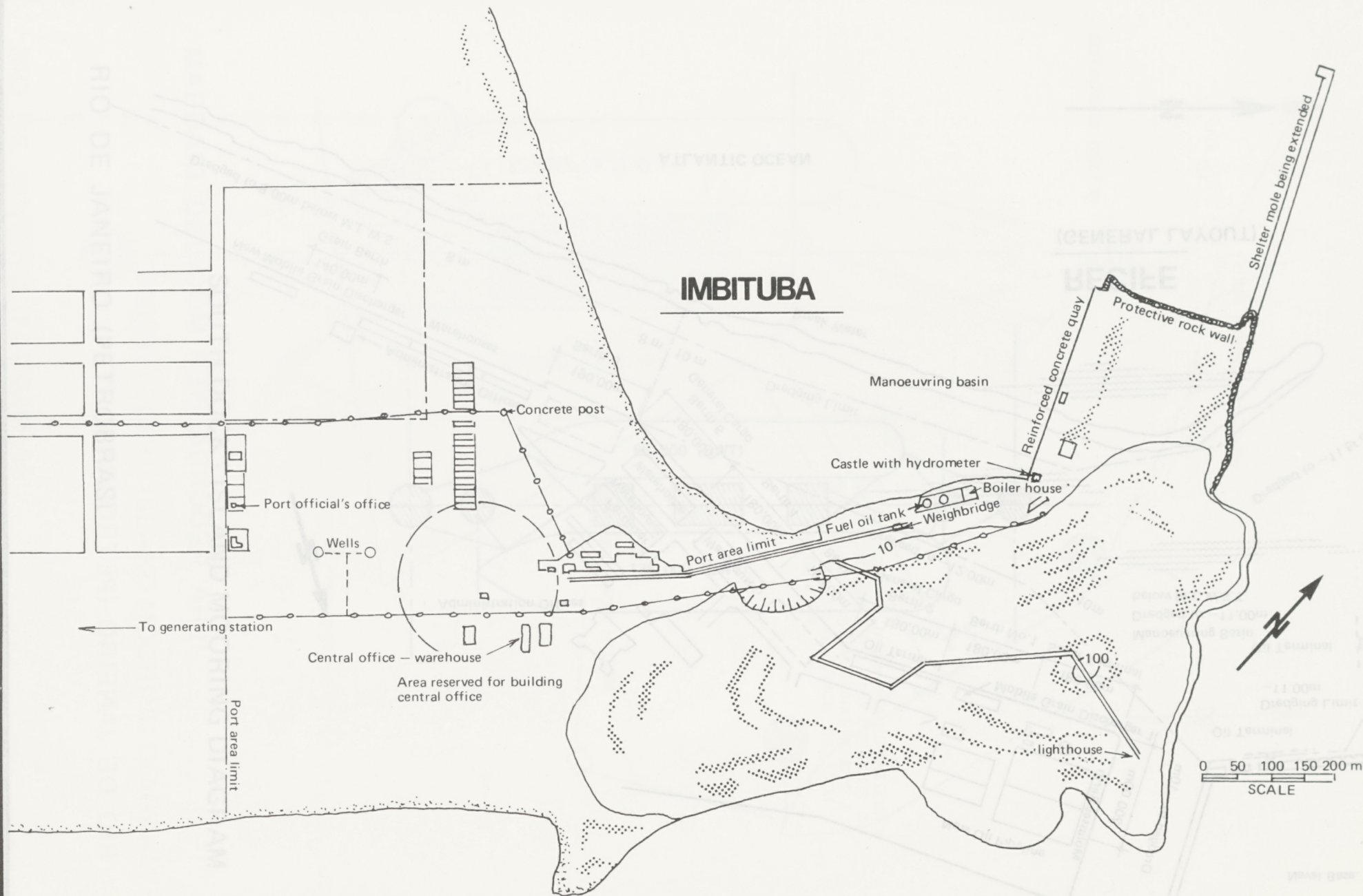
**CARMOPOLIS**  
 BERTHING PLAN  
 CONDITION 3: WIND & SEA FROM THE SE

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"F"

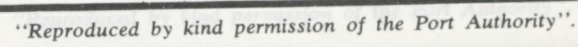


# IMBITUBA

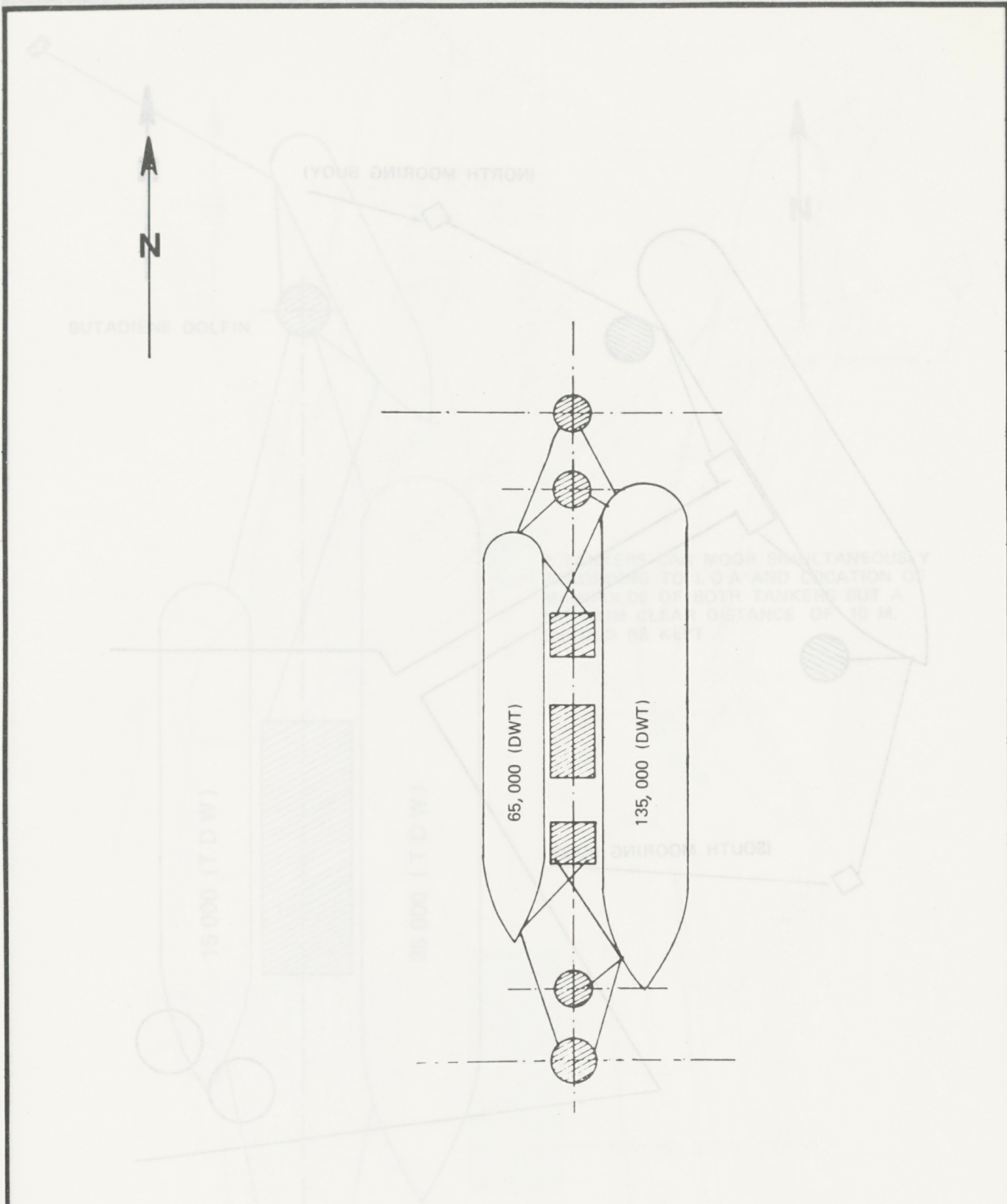


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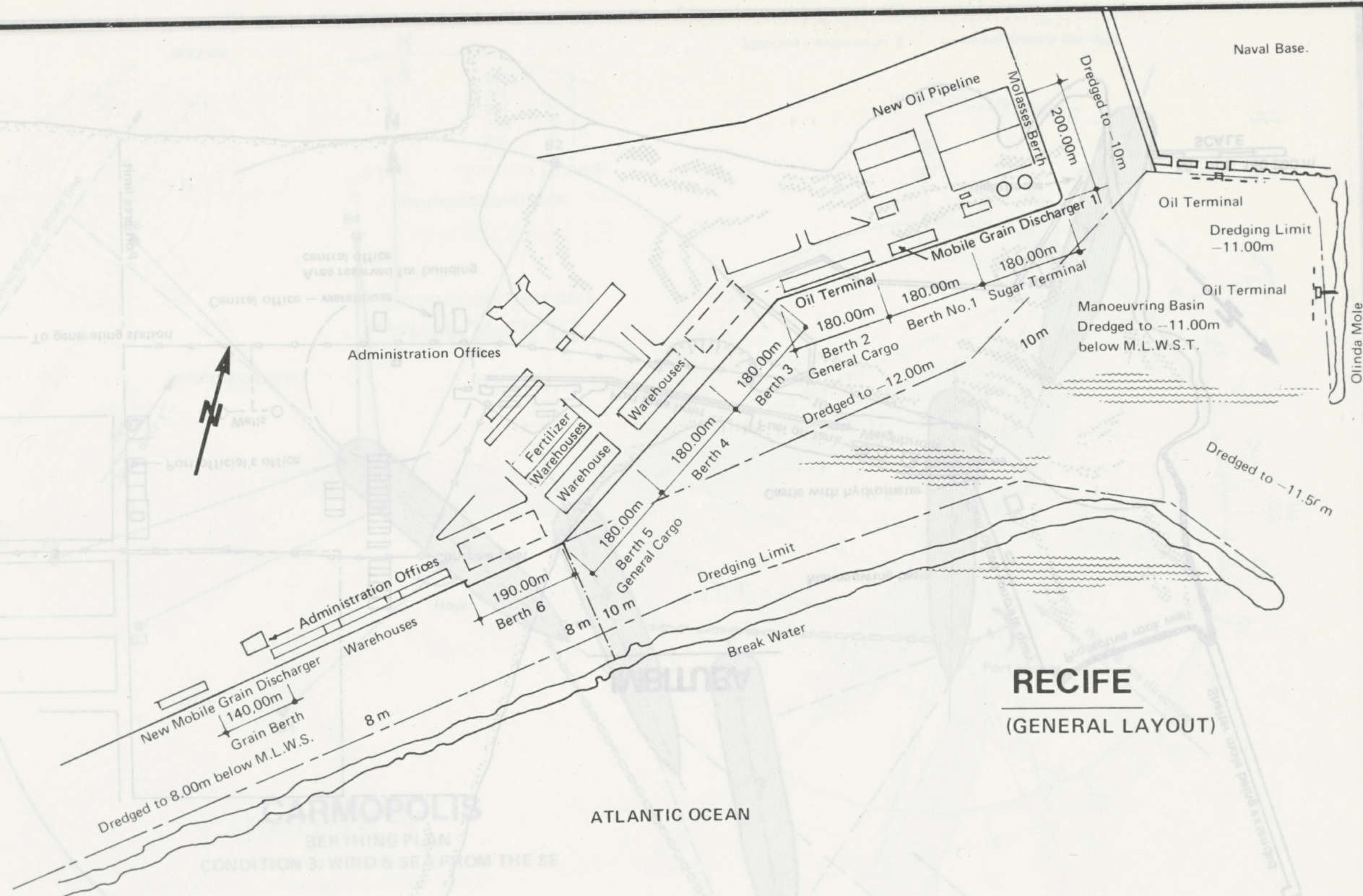




SOUTH DOCK - ISLAND MOORING DIAGRAM

RIO DE JANEIRO (PETROBRAS)



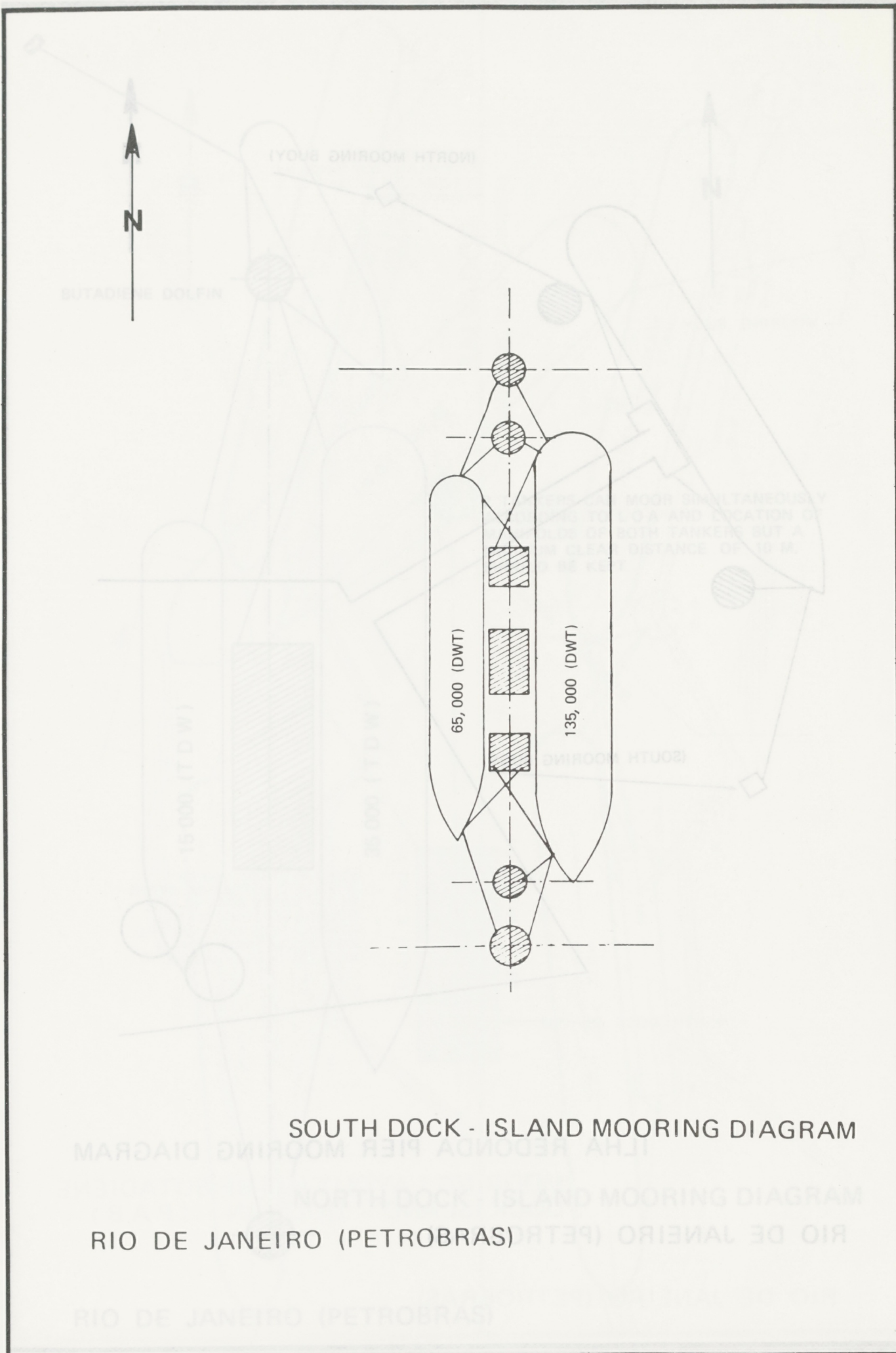


## RECIFE

(GENERAL LAYOUT)

ATLANTIC OCEAN

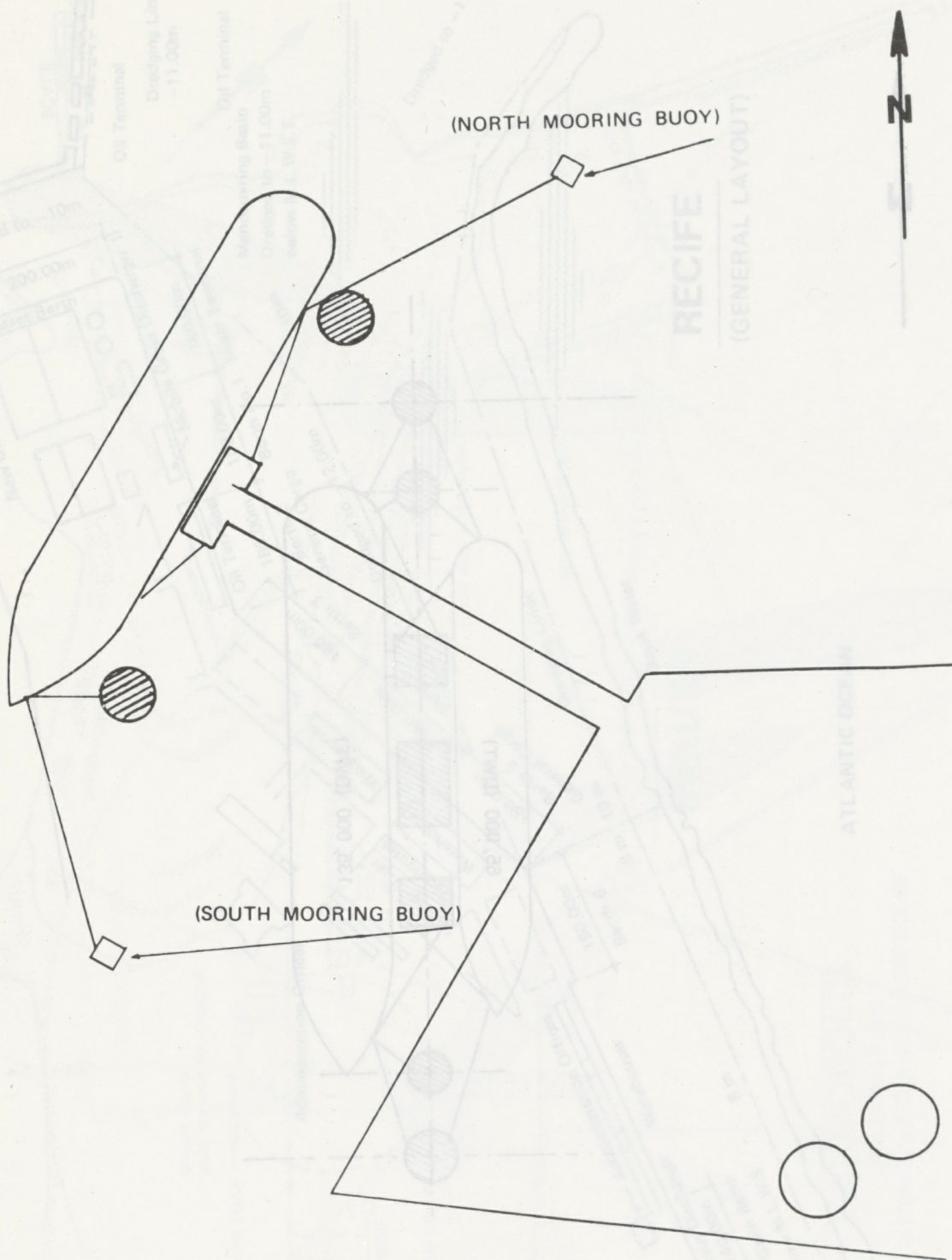




SOUTH DOCK - ISLAND MOORING DIAGRAM

RIO DE JANEIRO (PETROBRAS)

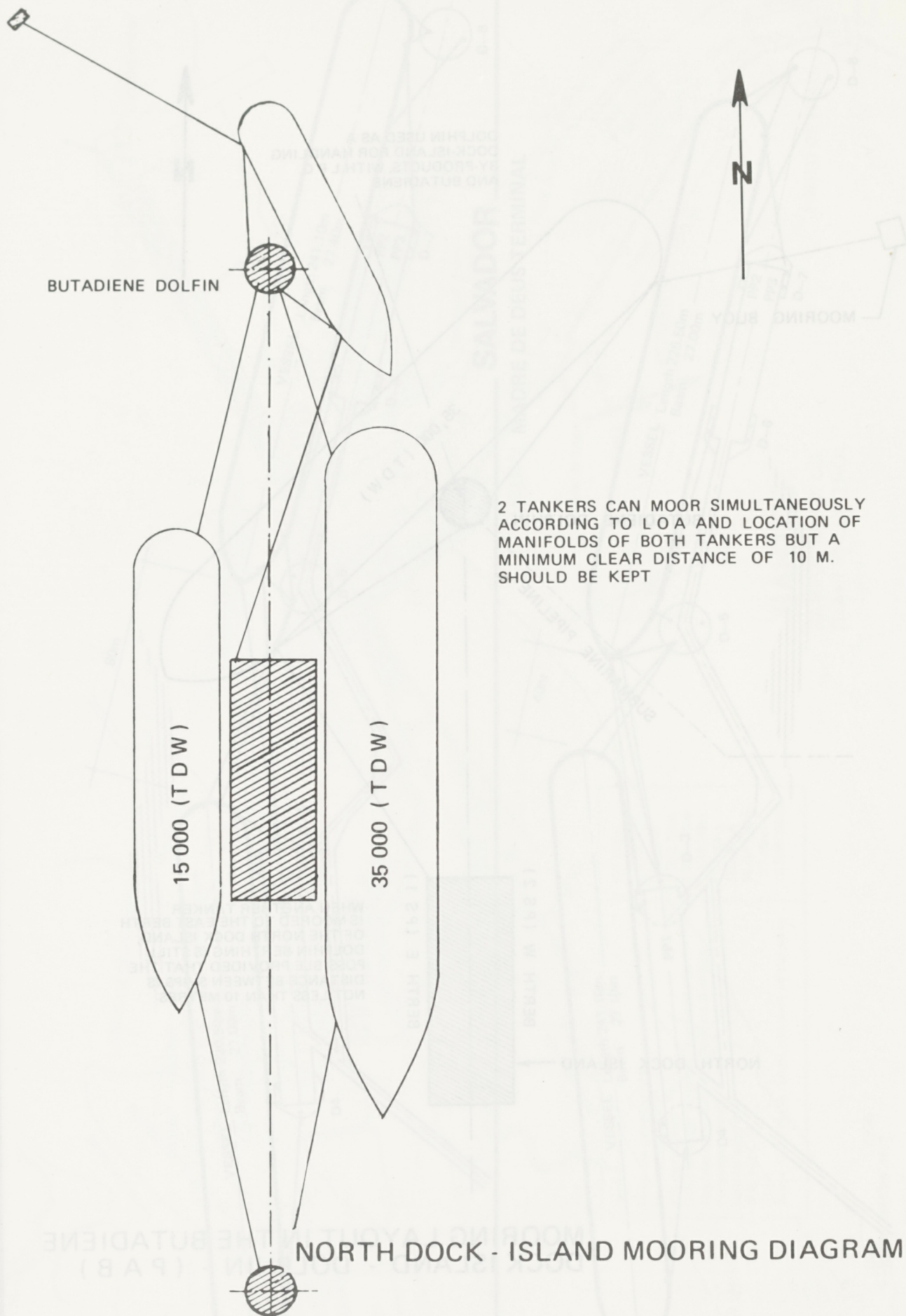




ILHA REDONDA PIER MOORING DIAGRAM

RIO DE JANEIRO (PETROBRAS)

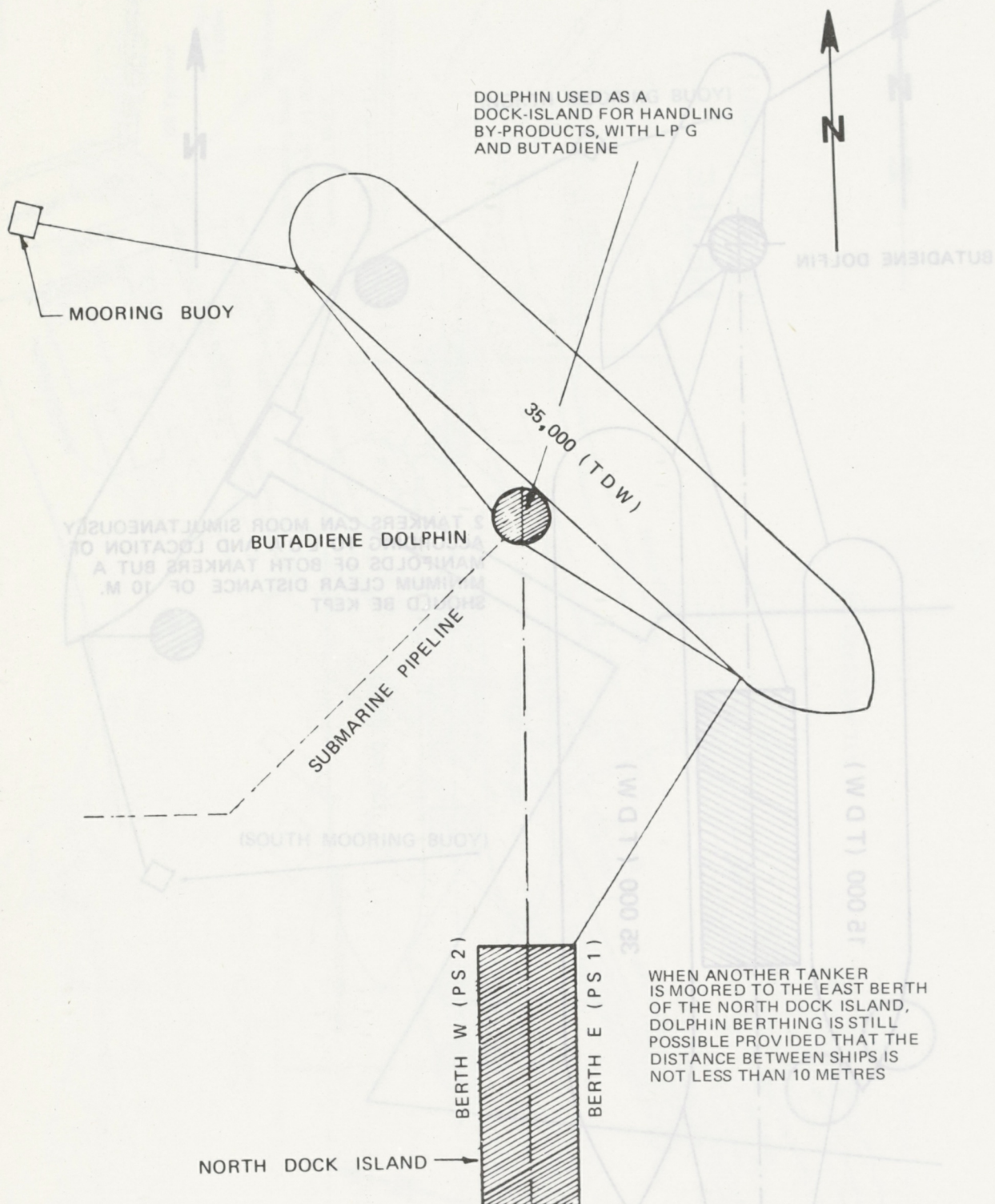




NORTH DOCK - ISLAND MOORING DIAGRAM

RIO DE JANEIRO (PETROBRAS)

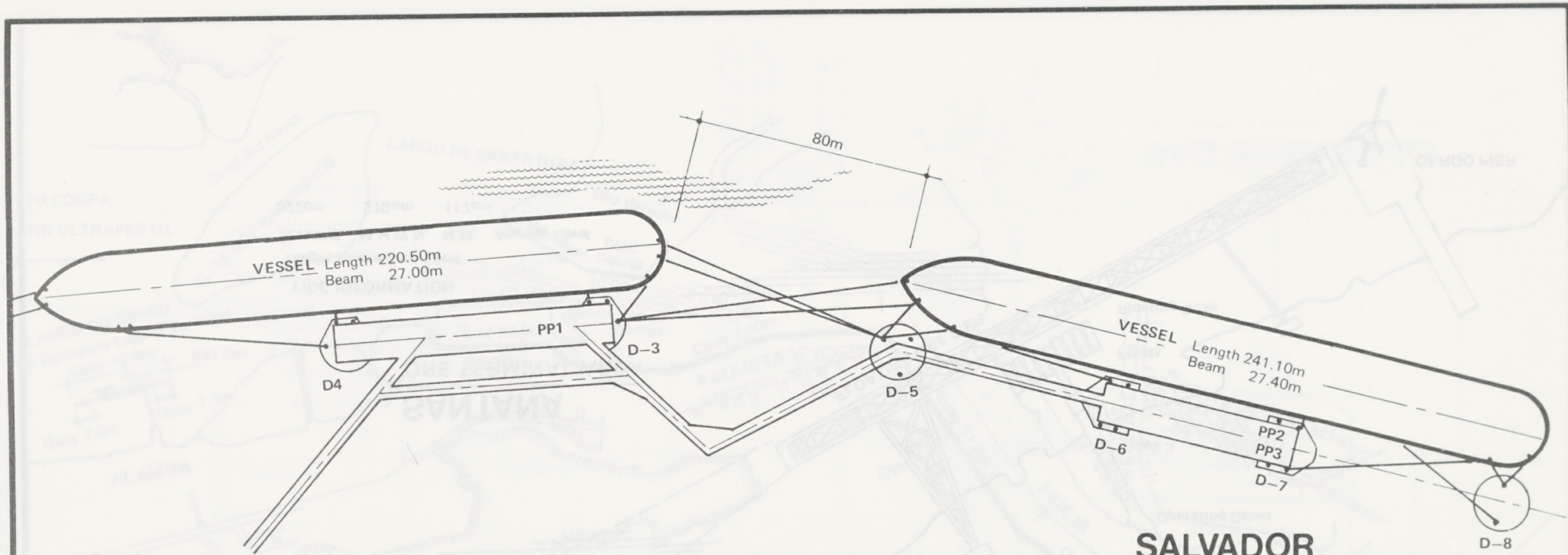




MOORING LAYOUT IN THE BUTADIENE DOCK ISLAND - DOLPHIN - ( P A B )

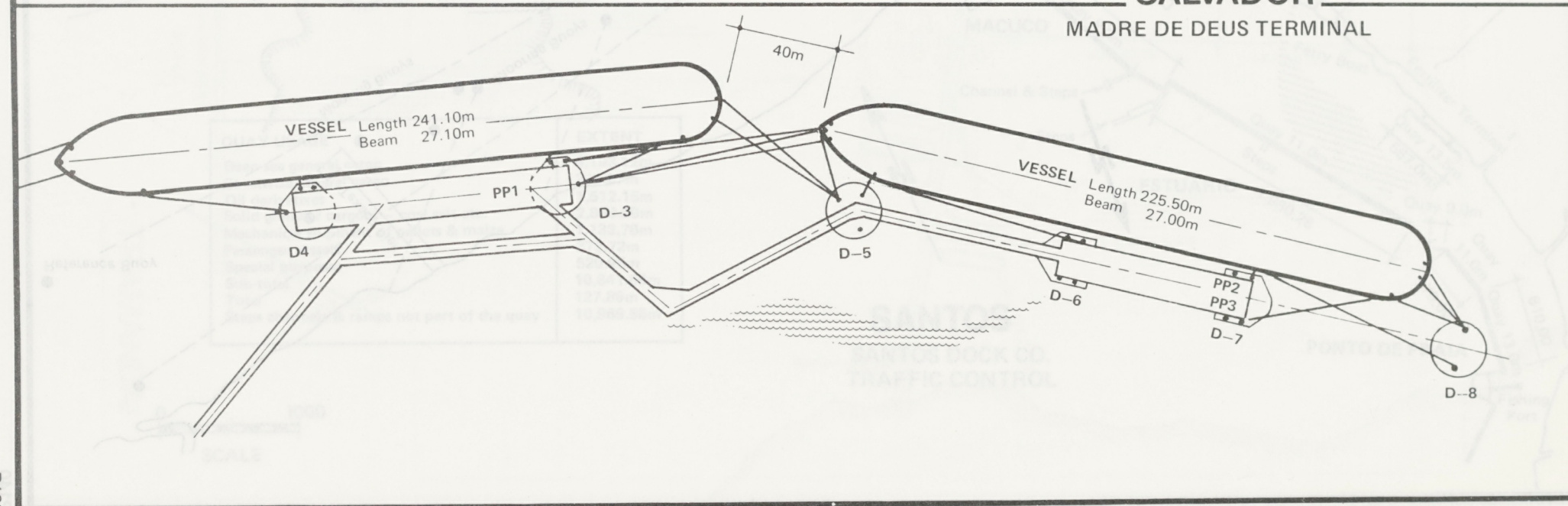
RIO DE JANEIRO (PETROBRAS)





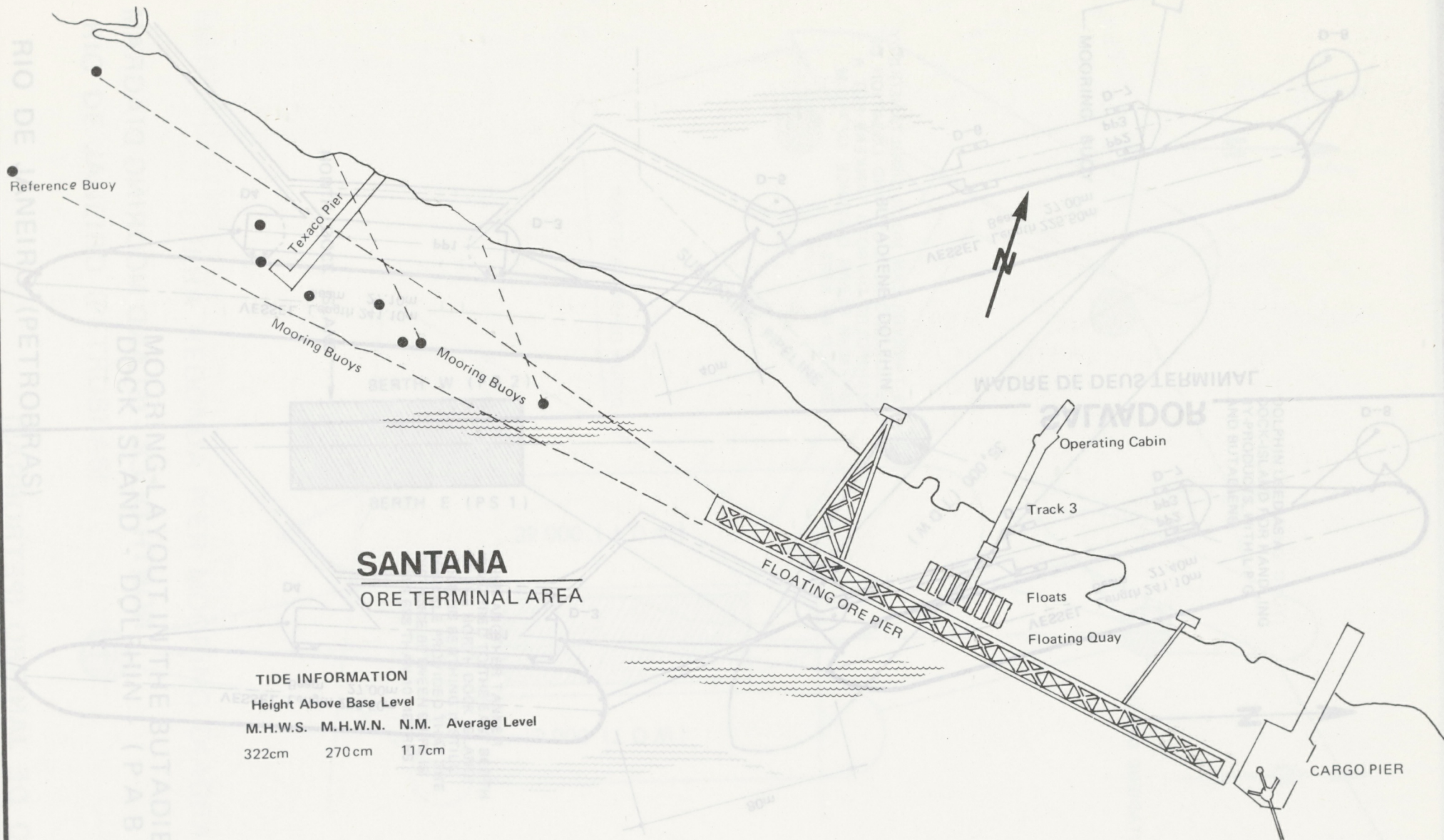
## SALVADOR

MADRE DE DEUS TERMINAL

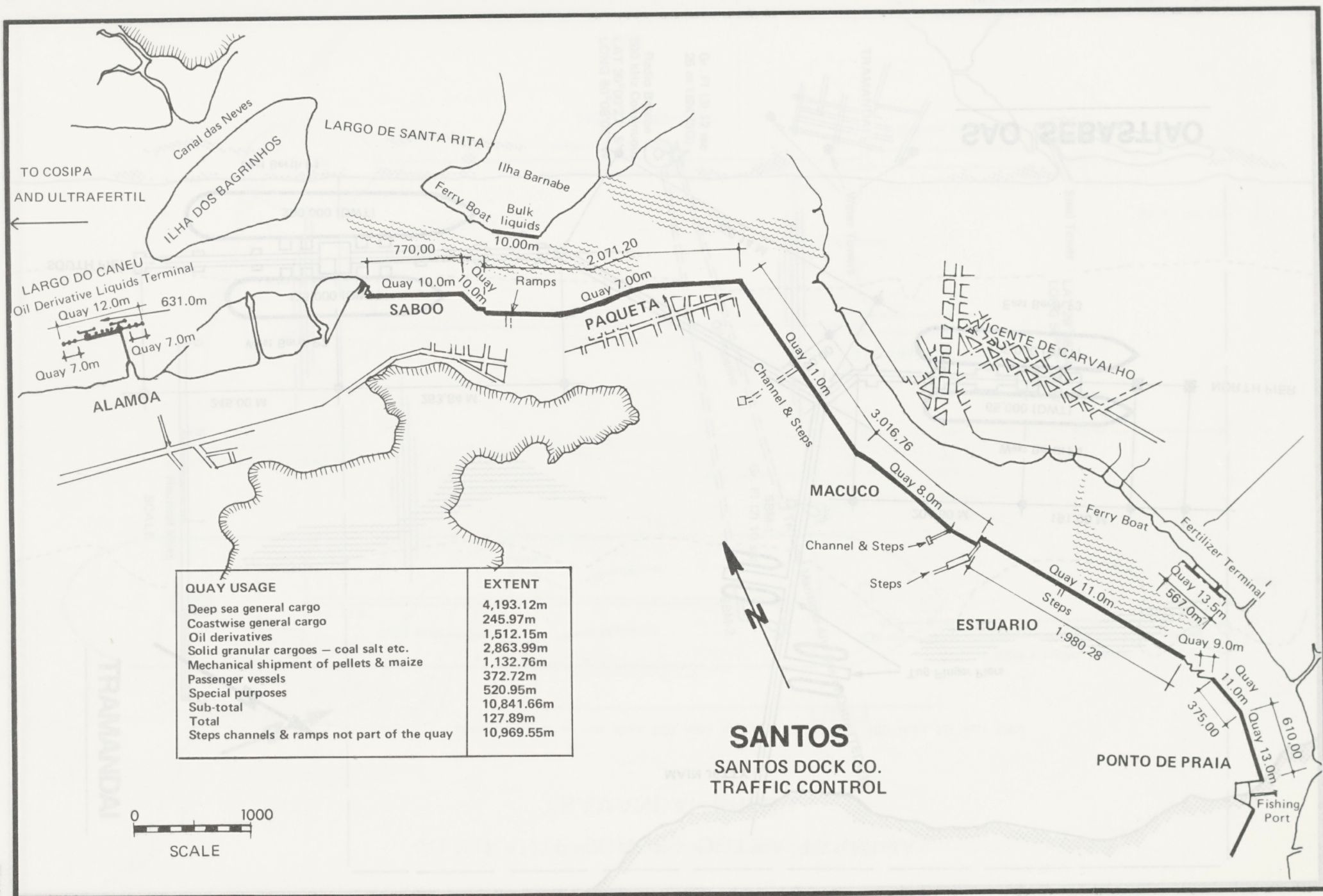


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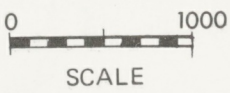








QUAY USAGE	EXTENT
Deep sea general cargo	4,193.12m
Coastwise general cargo	245.97m
Oil derivatives	1,512.15m
Solid granular cargoes — coal salt etc.	2,863.99m
Mechanical shipment of pellets & maize	1,132.76m
Passenger vessels	372.72m
Special purposes	520.95m
Sub-total	10,841.66m
Total	127.89m
Steps channels & ramps not part of the quay	10,969.55m

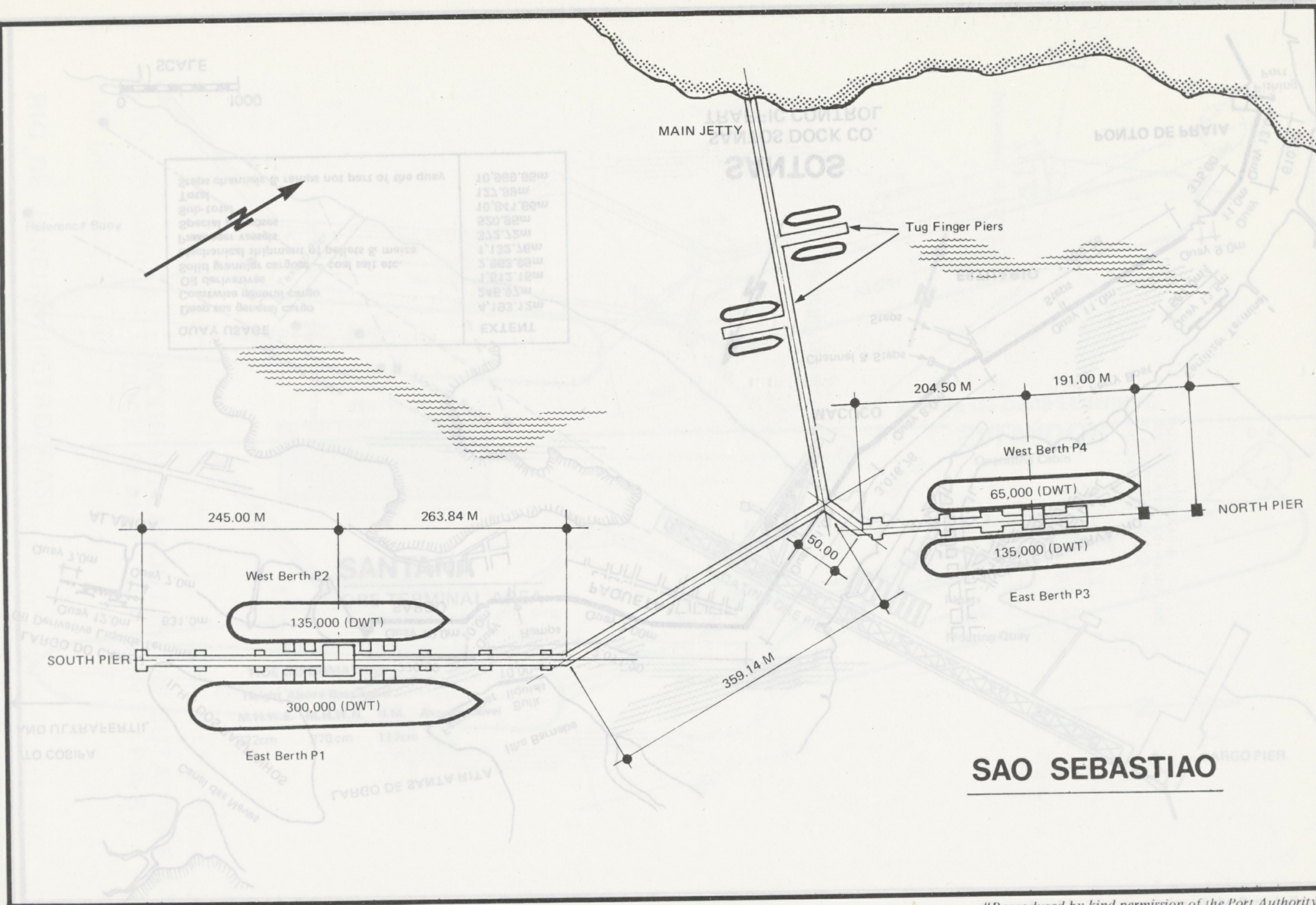


**SANTOS**  
SANTOS DOCK CO.  
TRAFFIC CONTROL

BRAZIL

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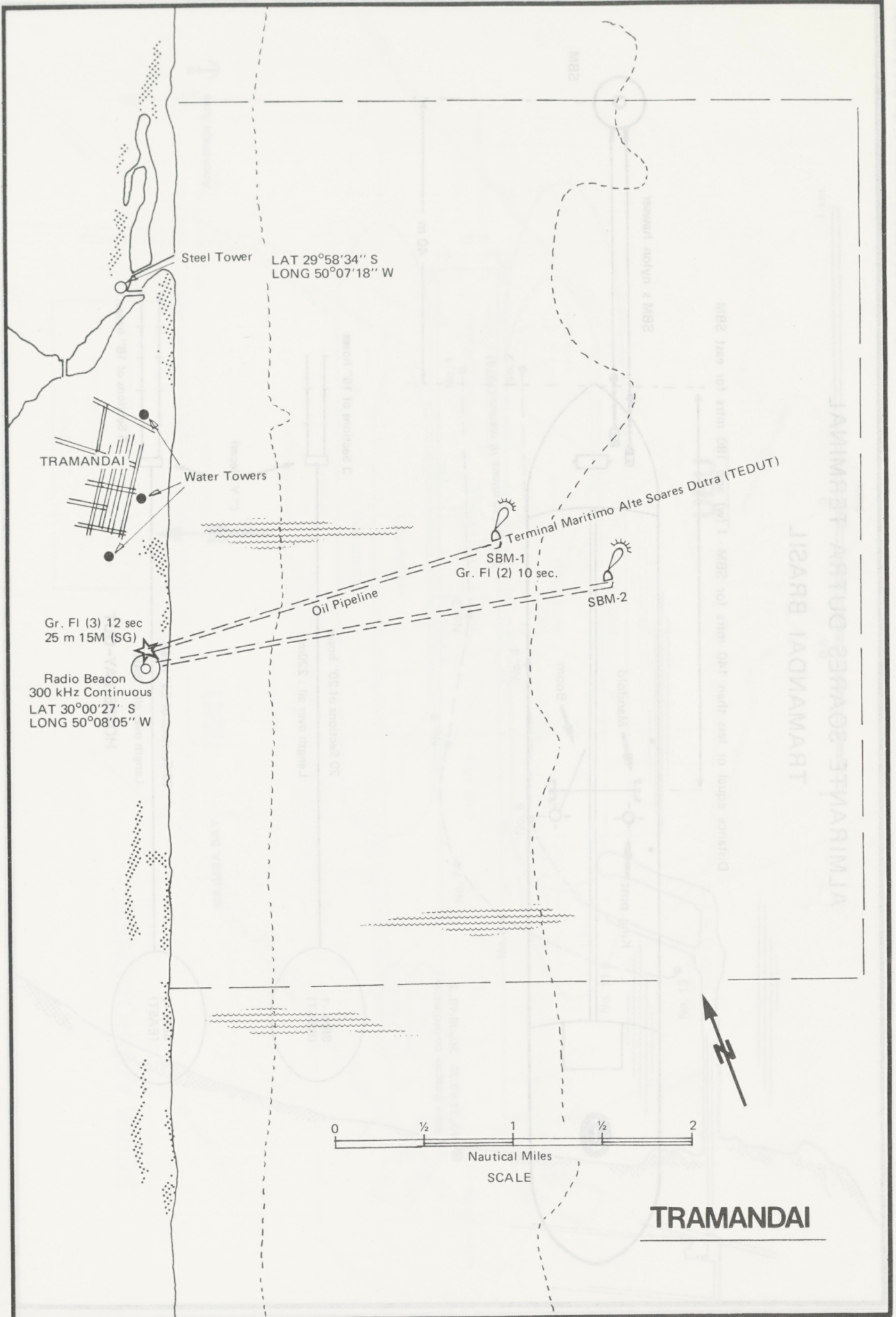




## SAO SEBASTIAO

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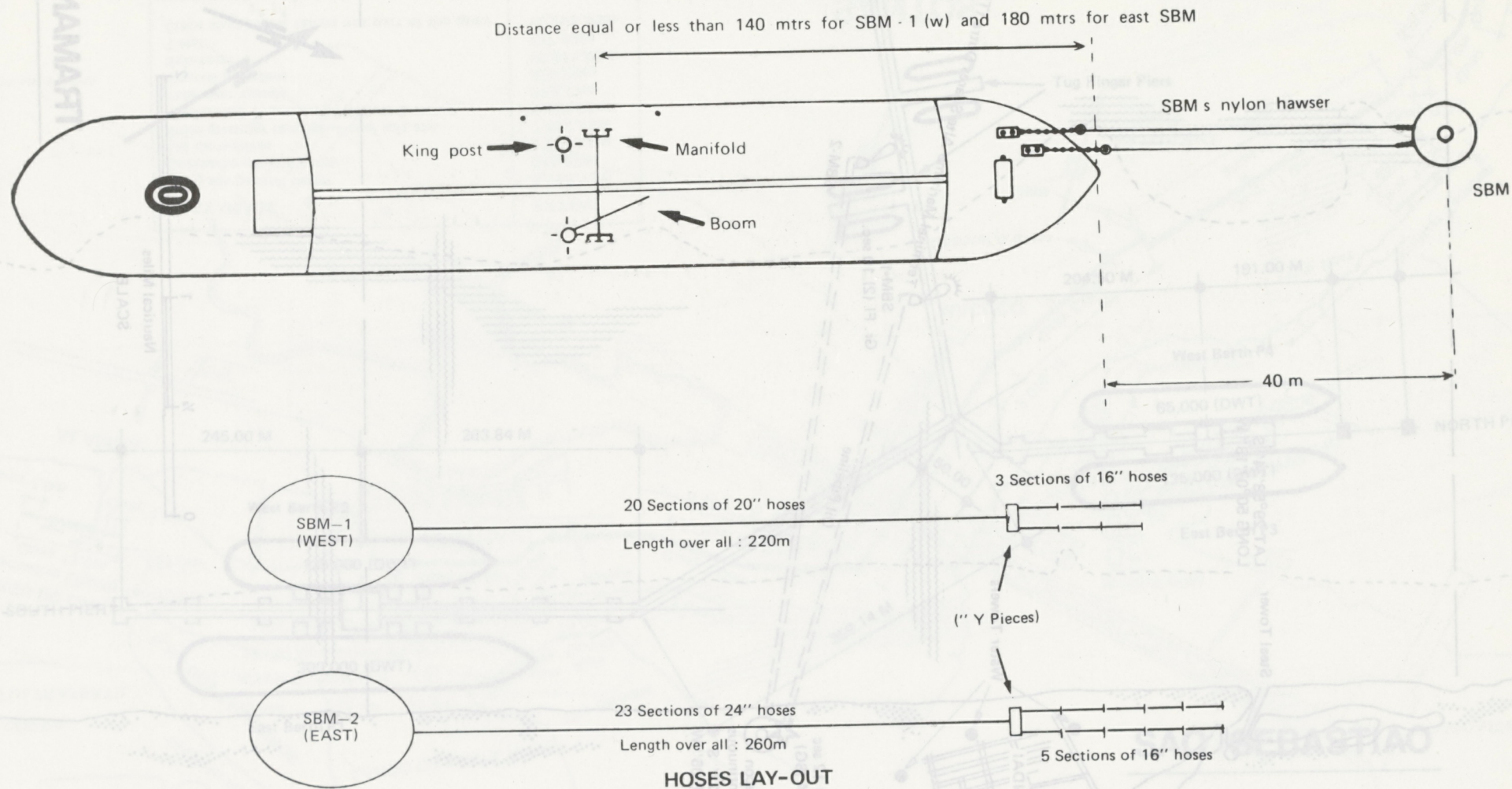




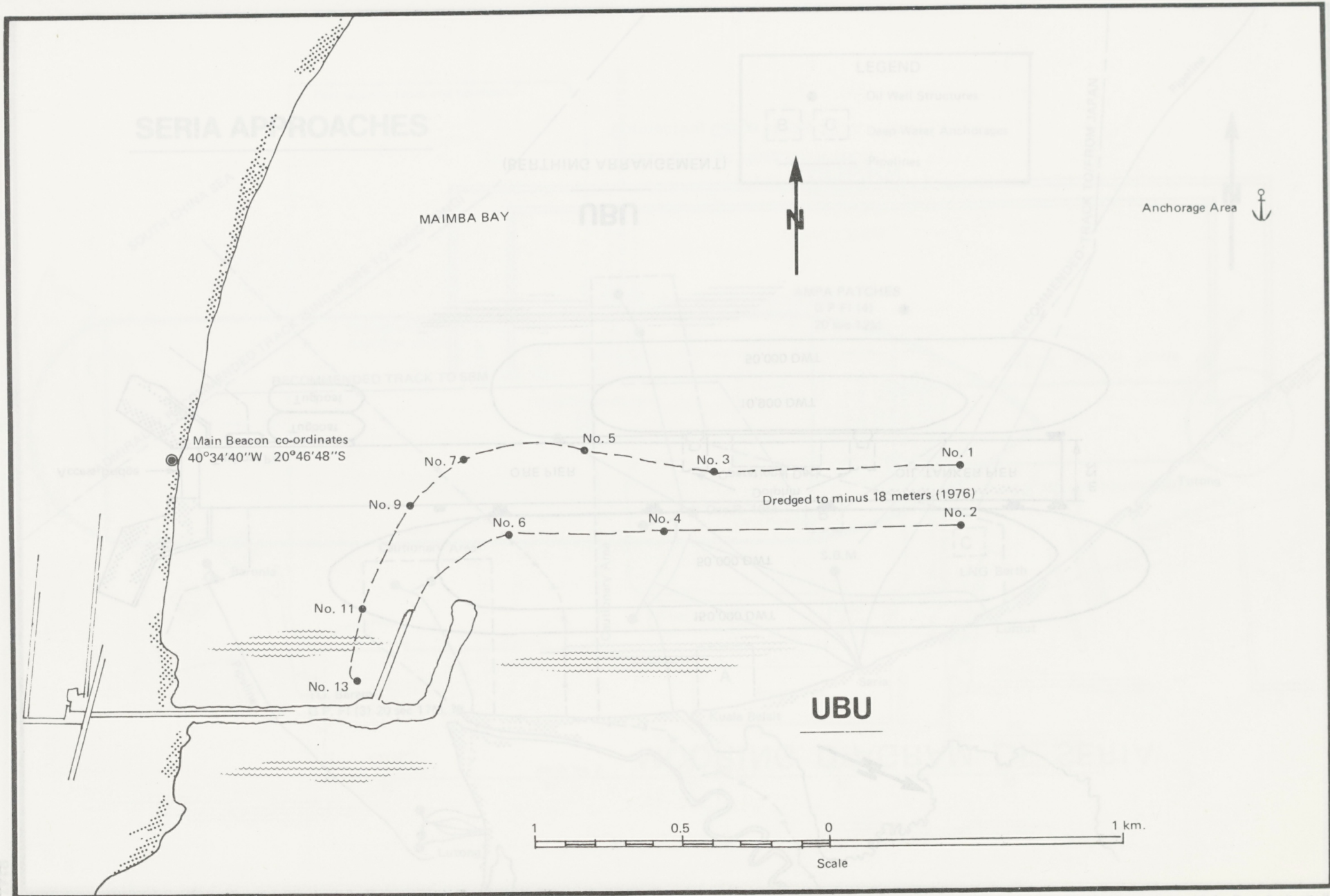
**TRAMANDAI**



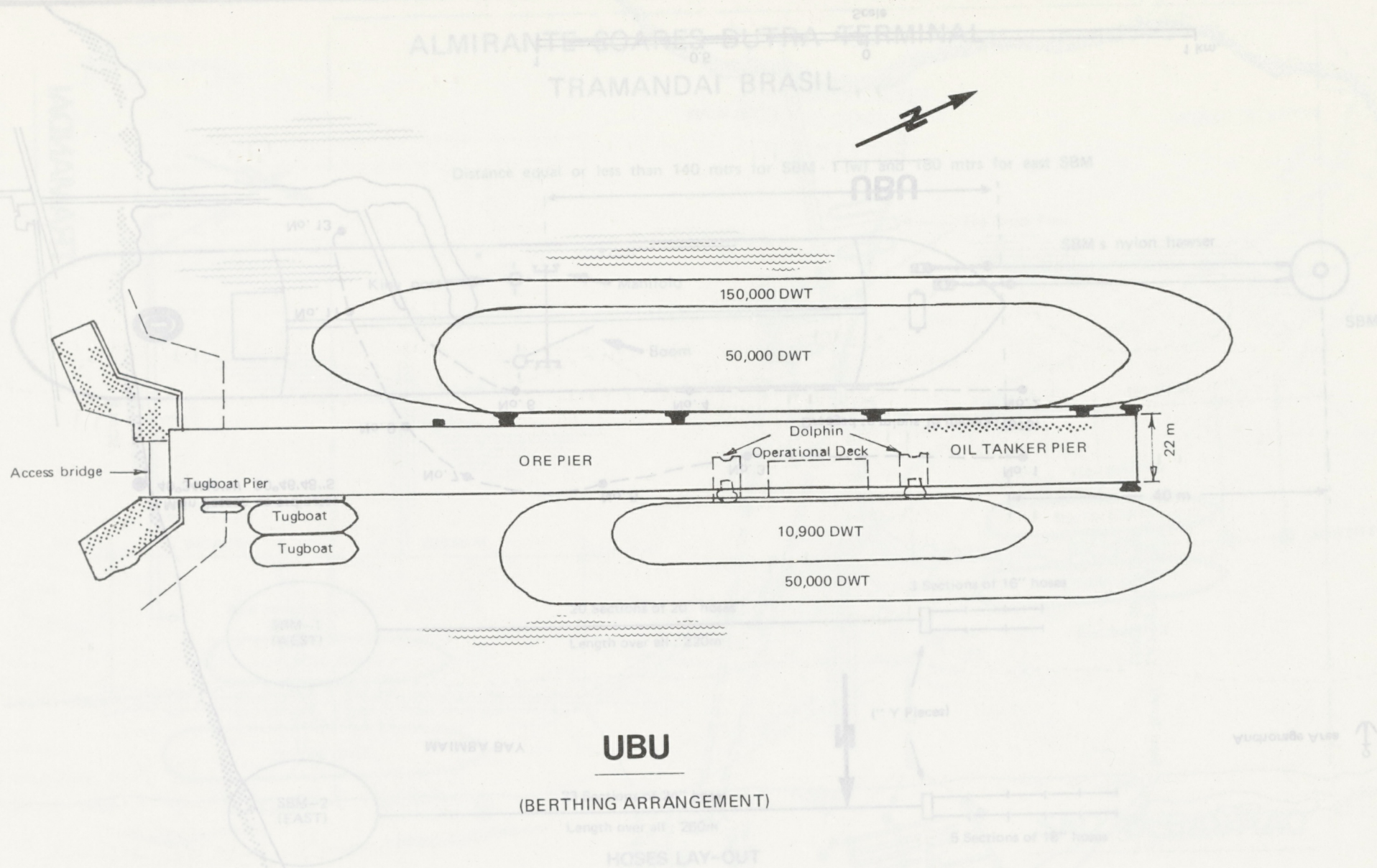
# ALMIRANTE SOARES DUTRA TERMINAL TRAMANDAI BRASIL













# SERIA APPROACHES

LEGEND

●

Oil Well Structures

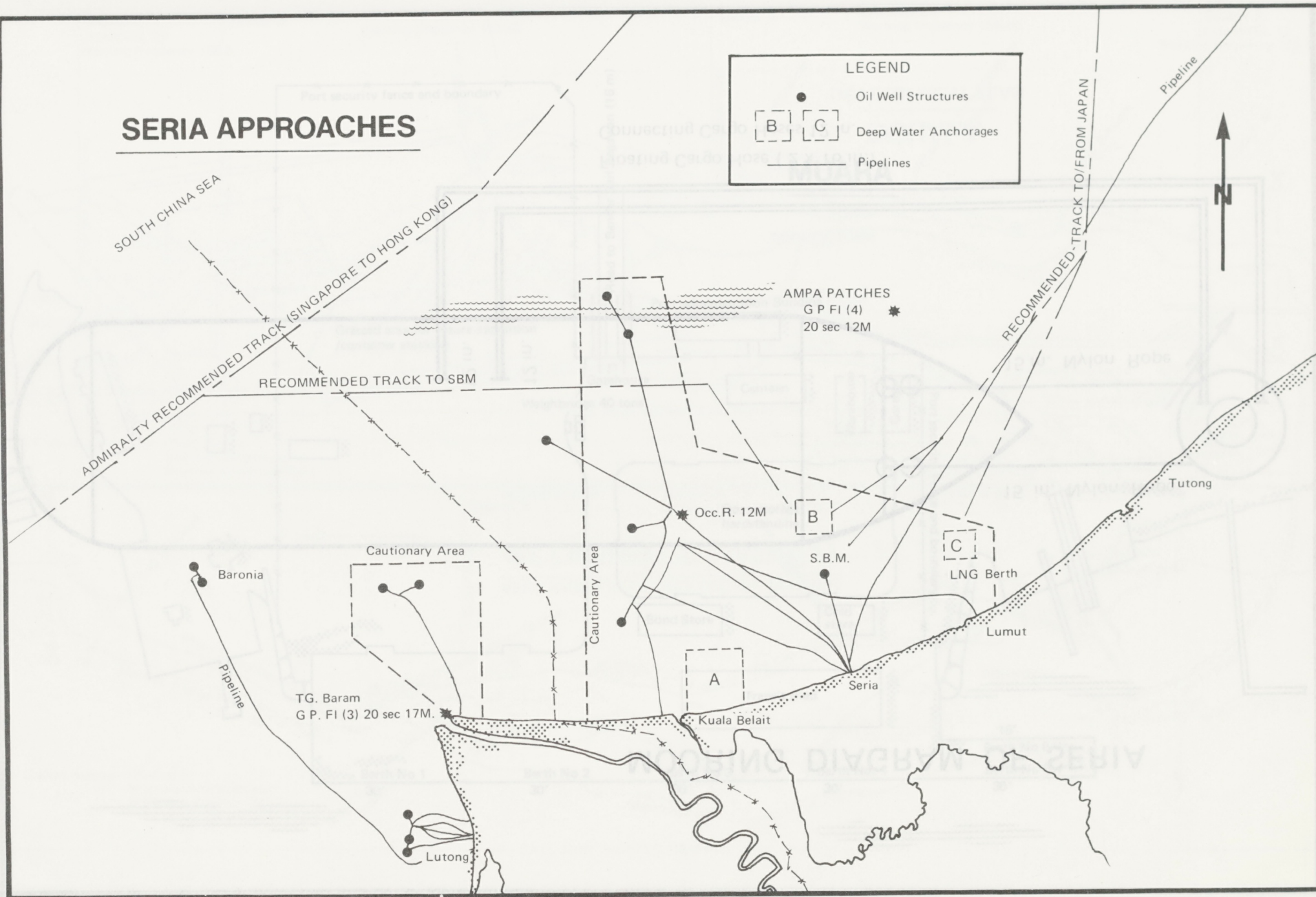
[B]

[C]

Deep Water Anchorages

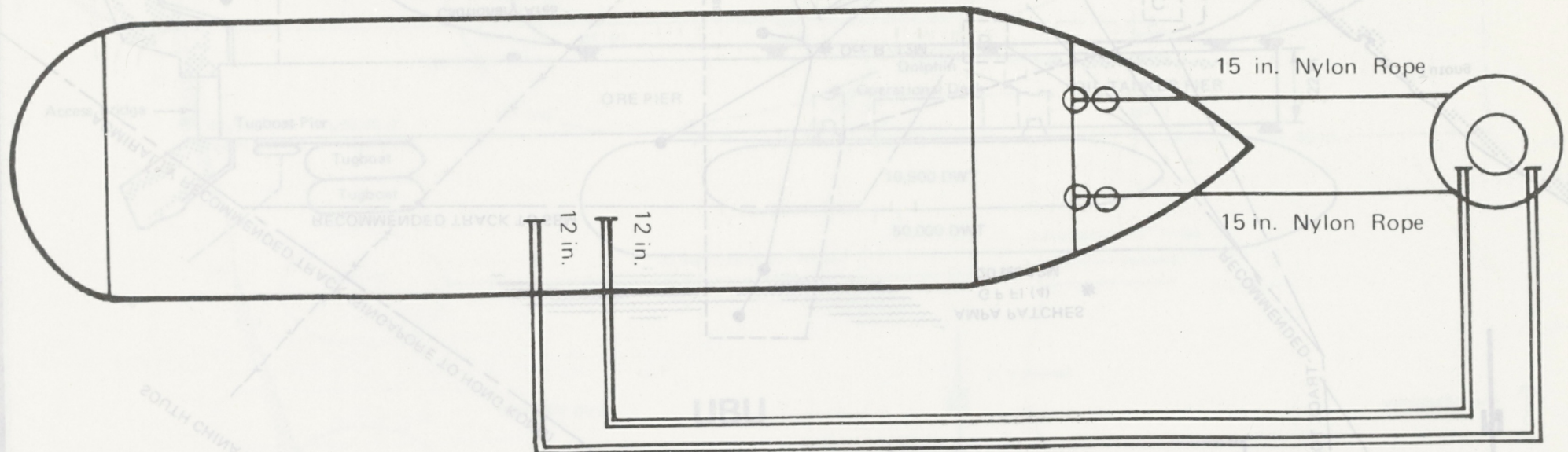
—

Pipelines



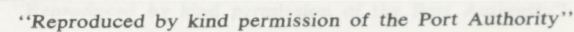


# MOORING DIAGRAM OF SERIA

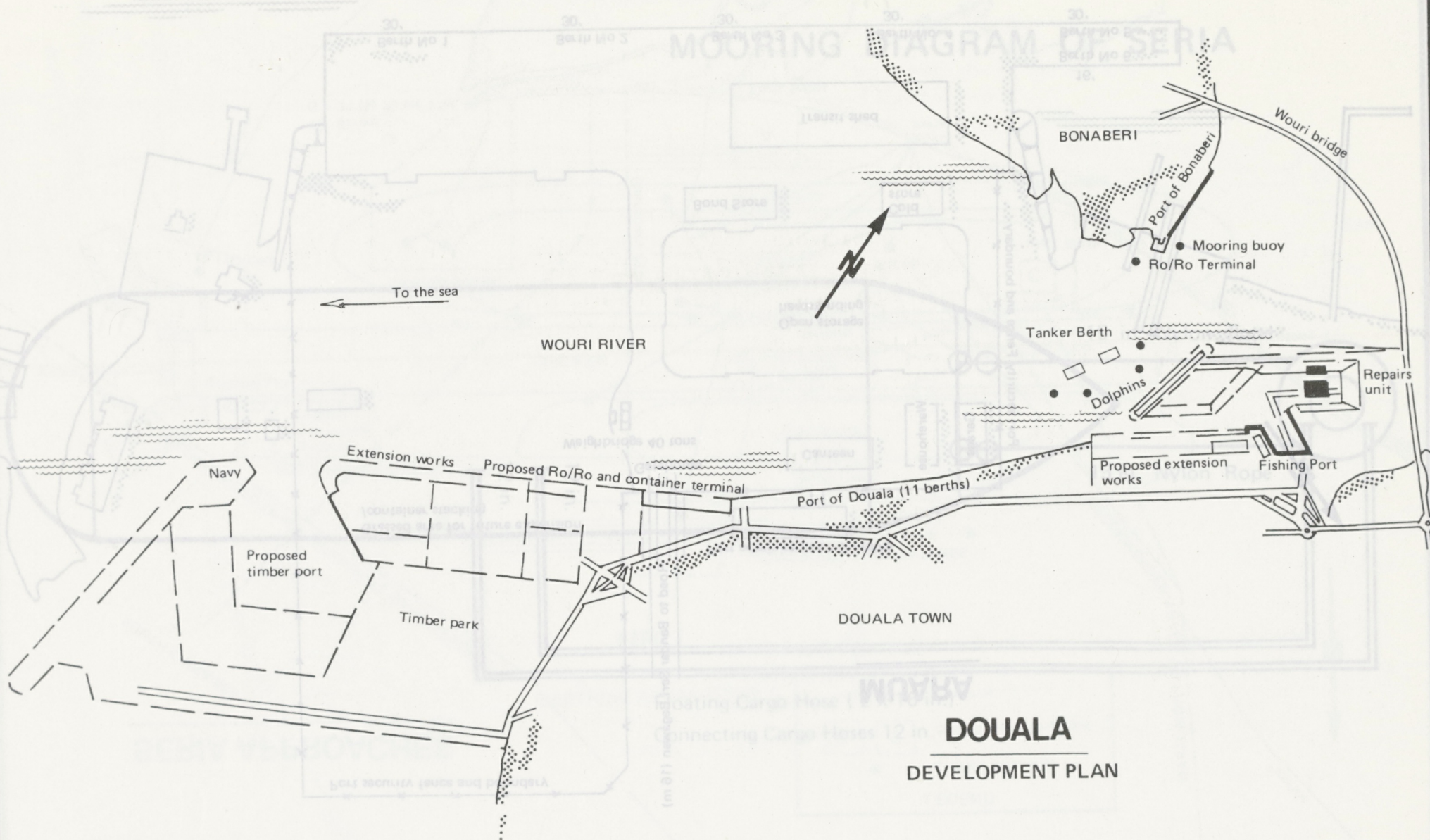


Floating Cargo Hose ( 2 x 16 in.)  
Connecting Cargo Hoses 12 in.

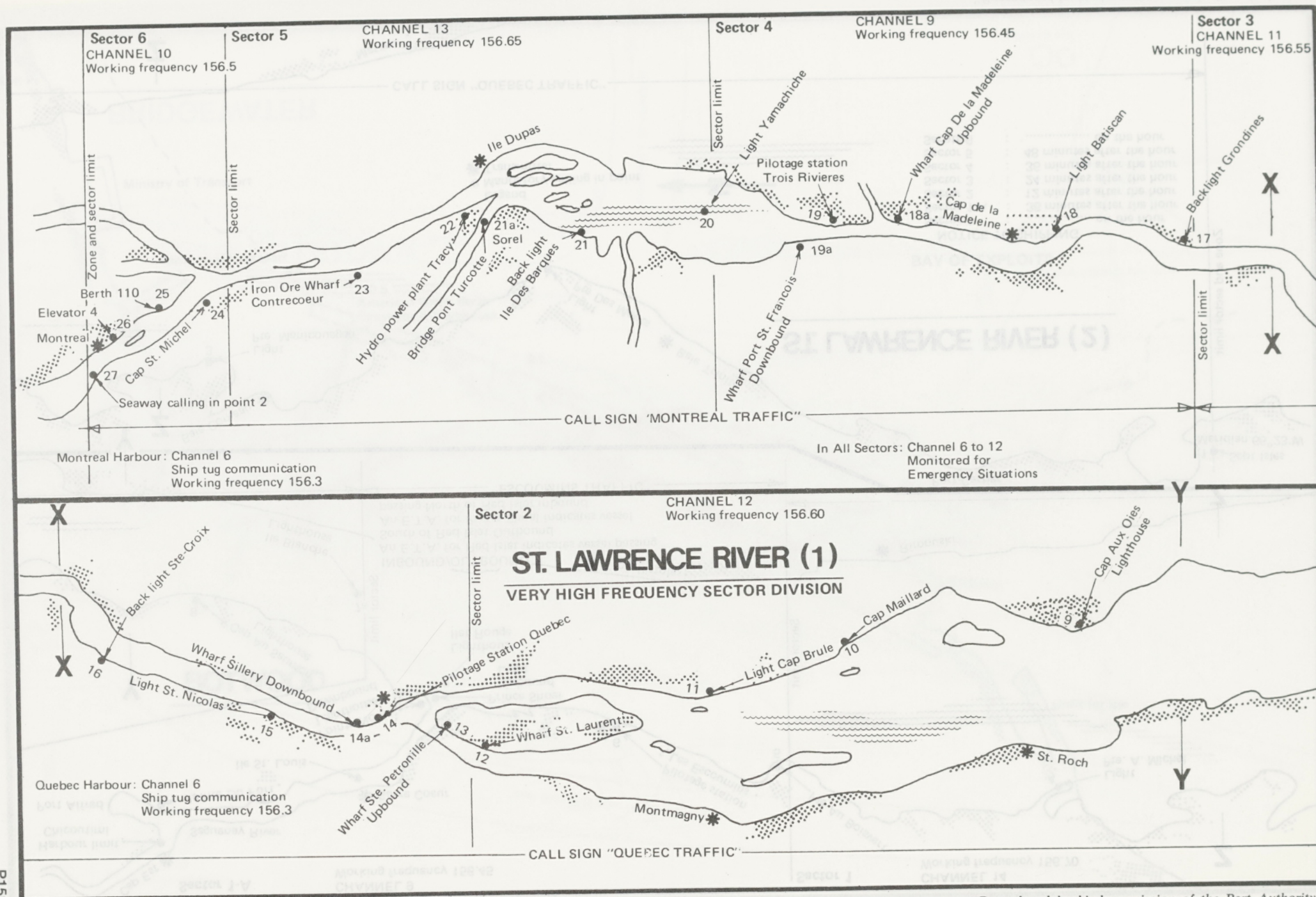






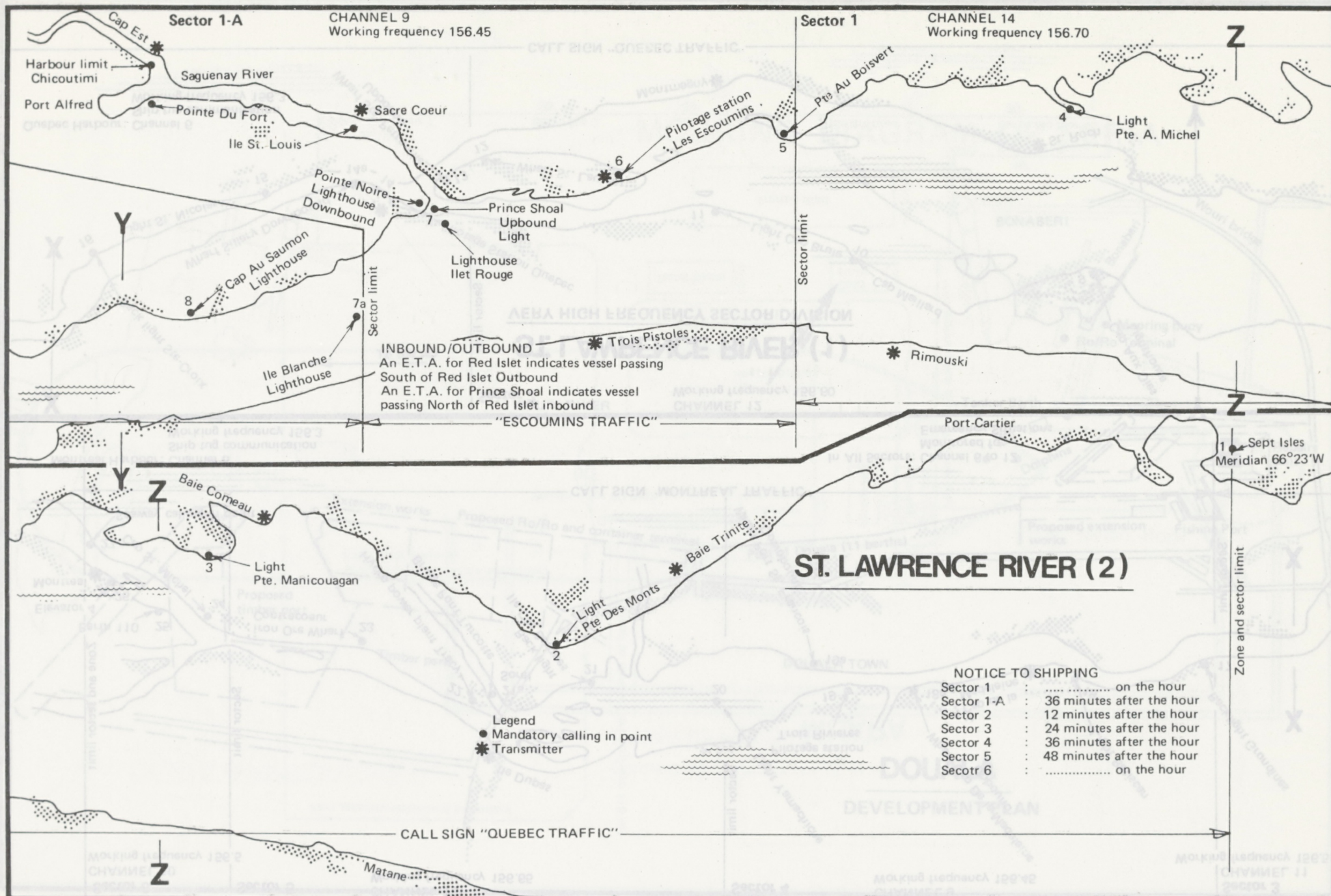




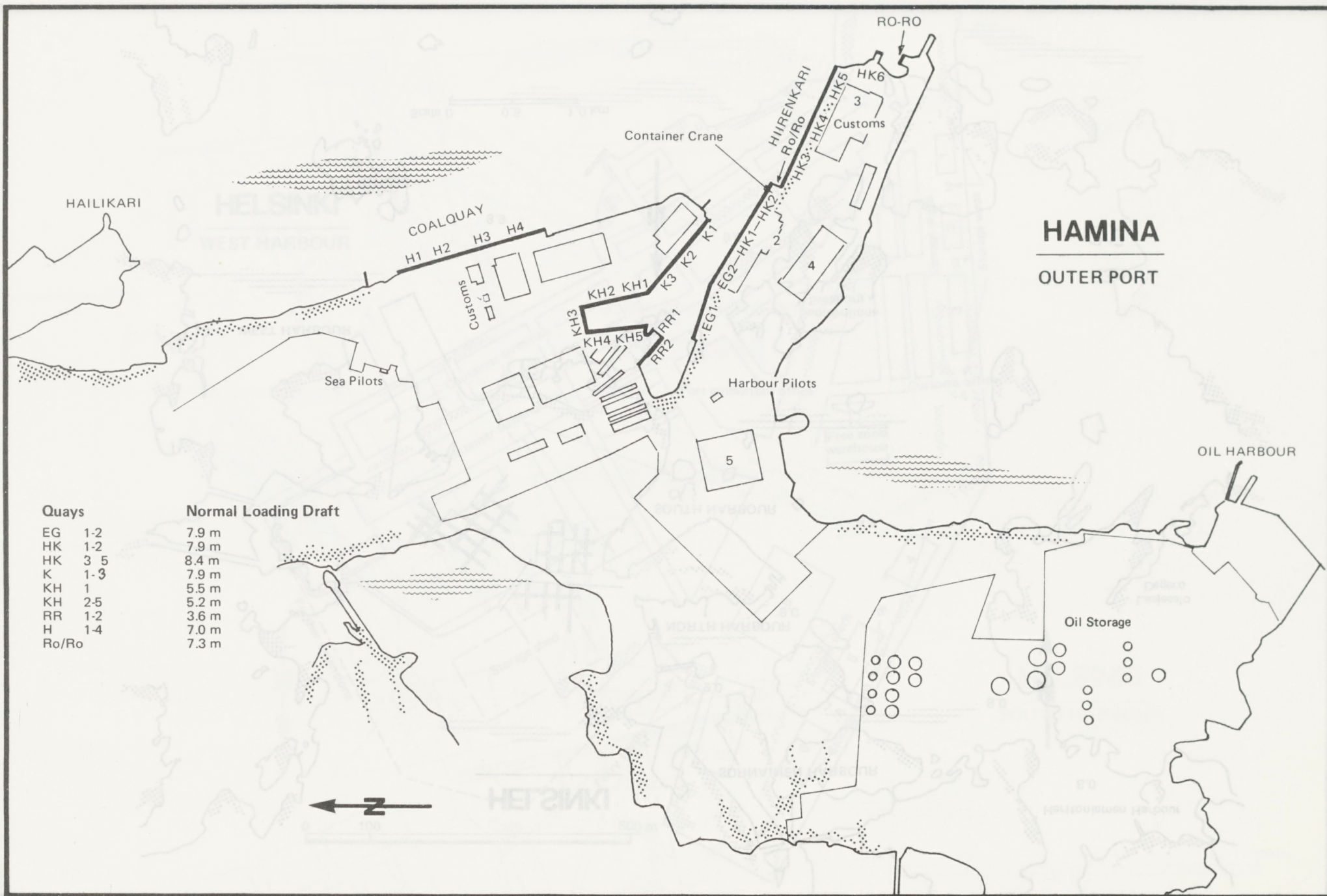


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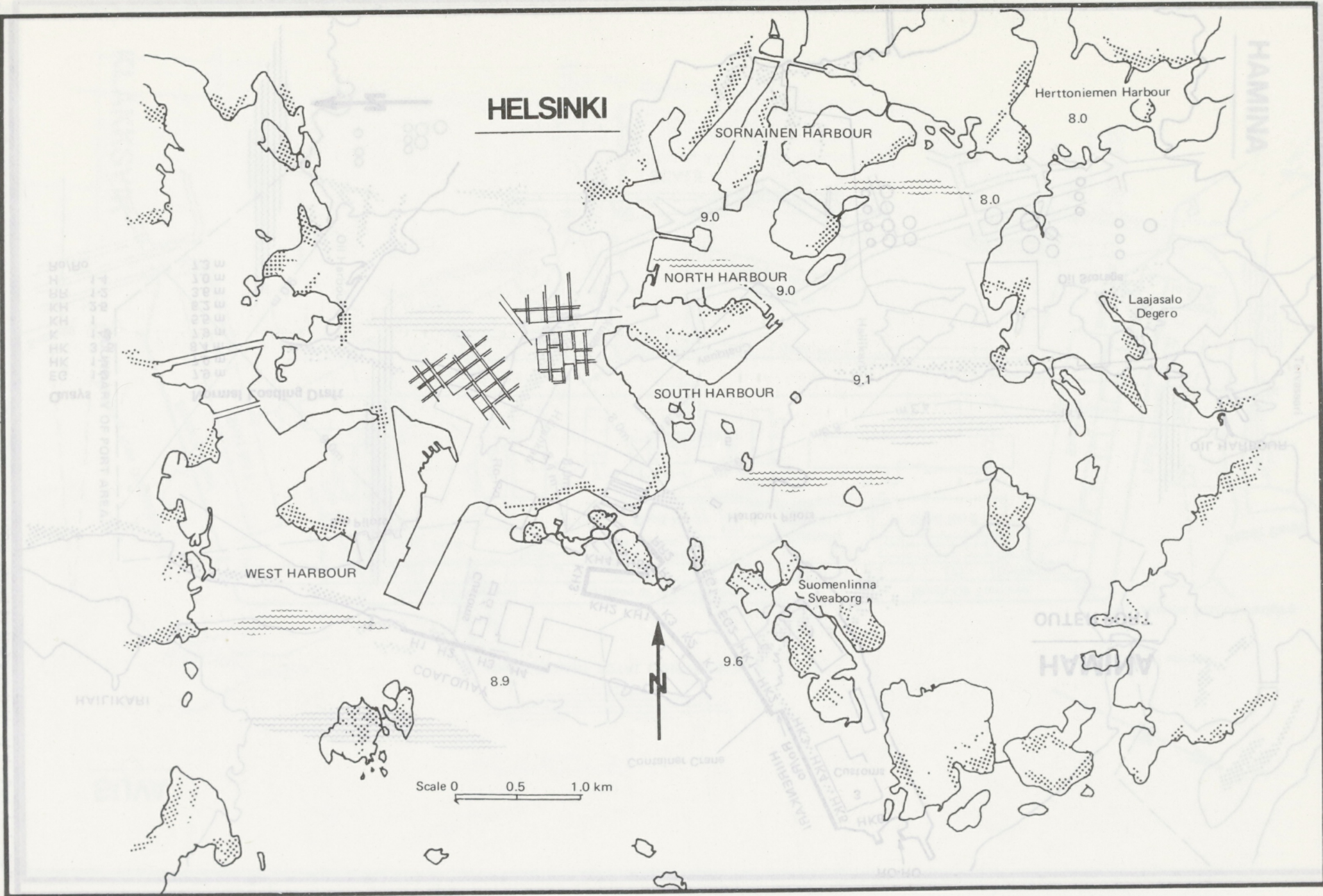






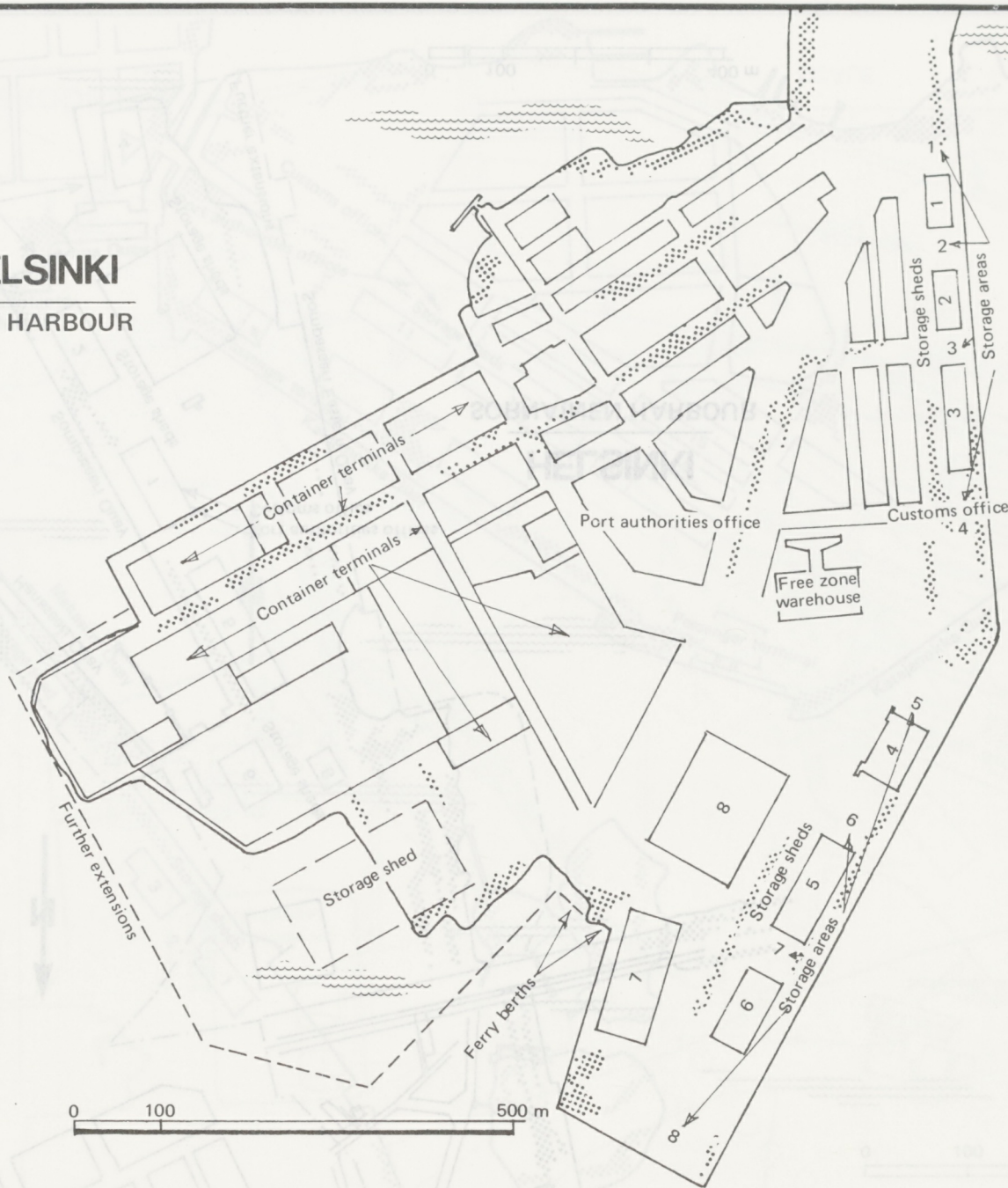
"Reproduced by kind permission of the Port Authority".



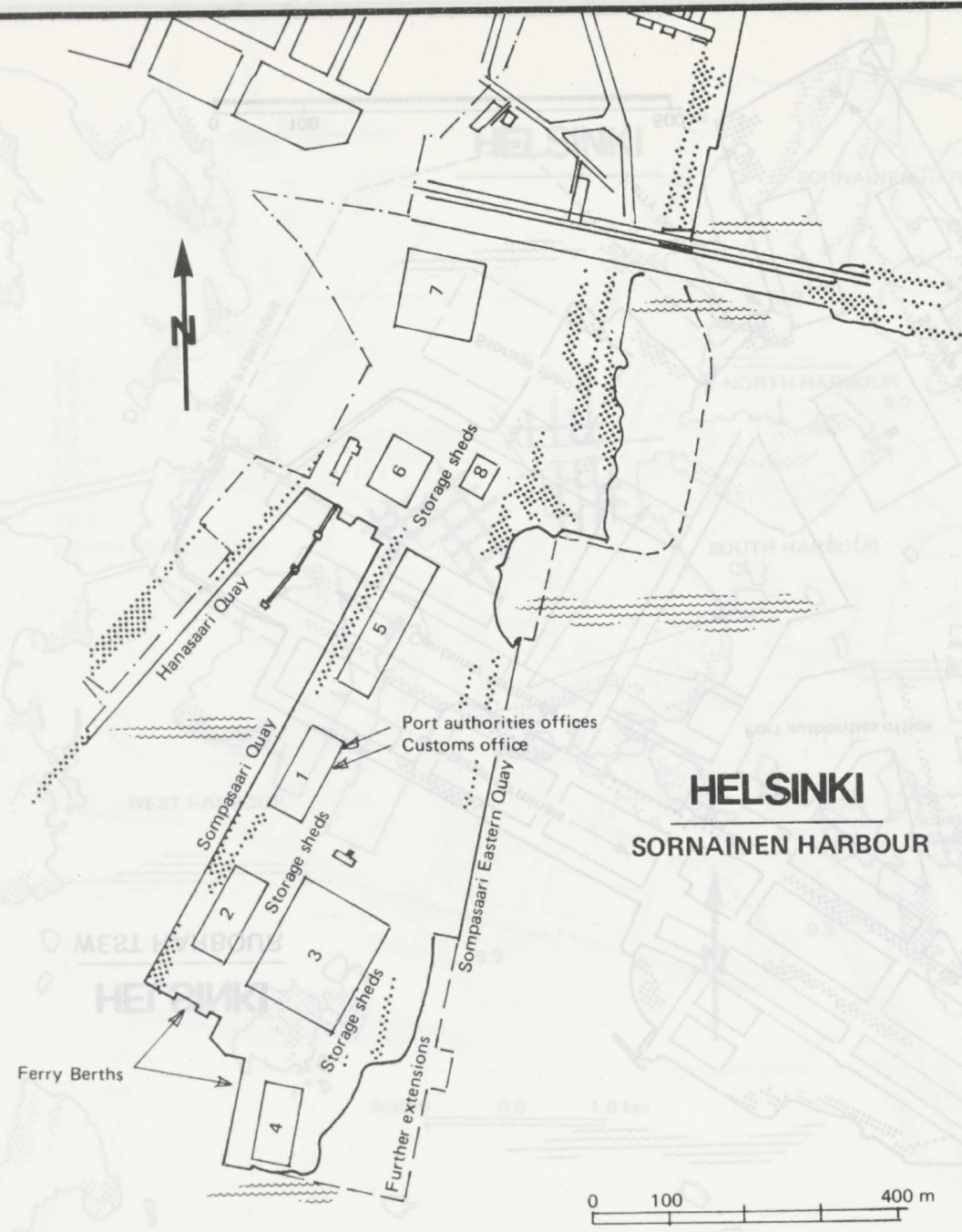




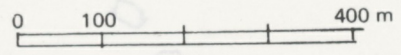
# HELSINKI WEST HARBOUR



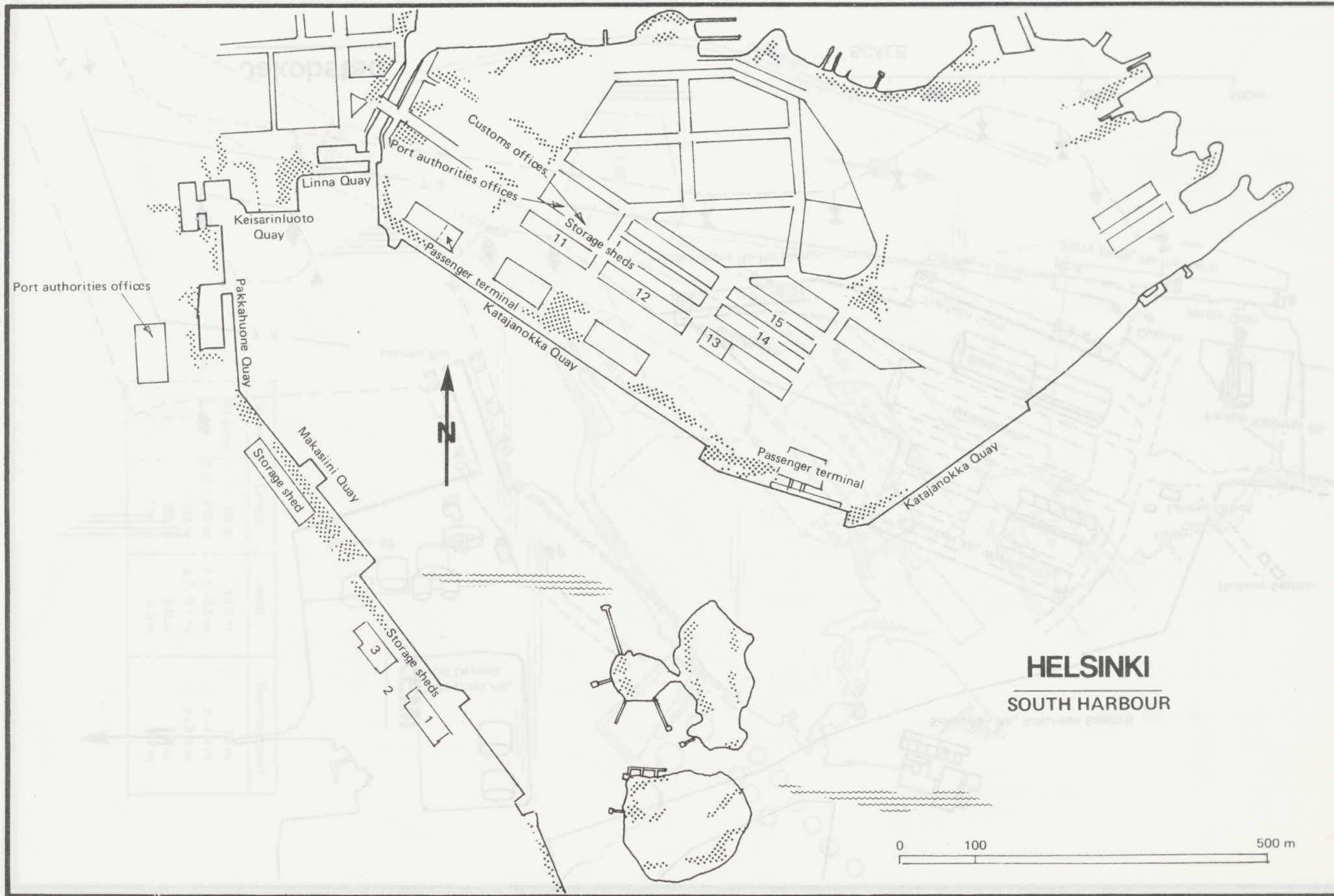




# **HELSINKI** **SORNAINEN HARBOUR**



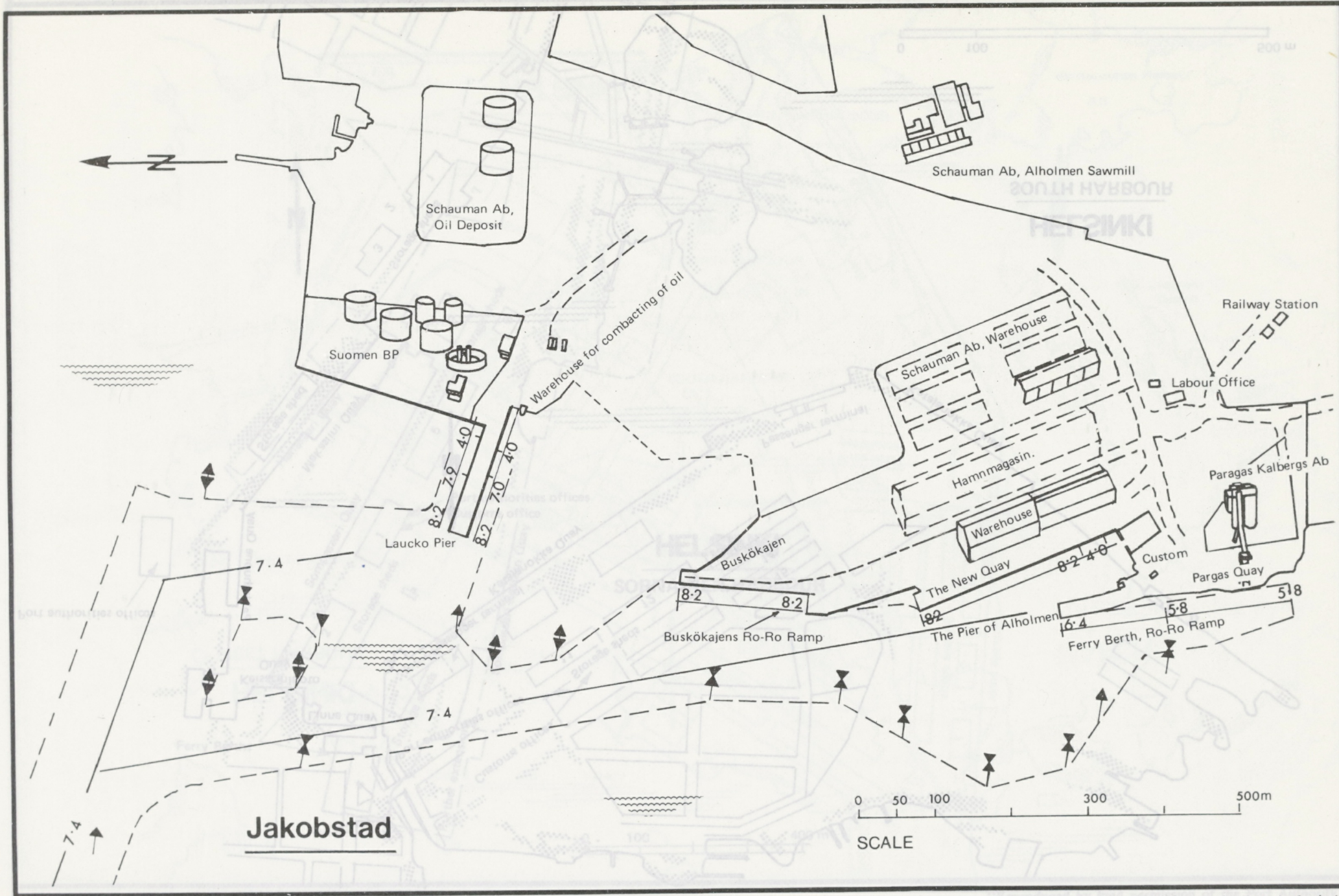




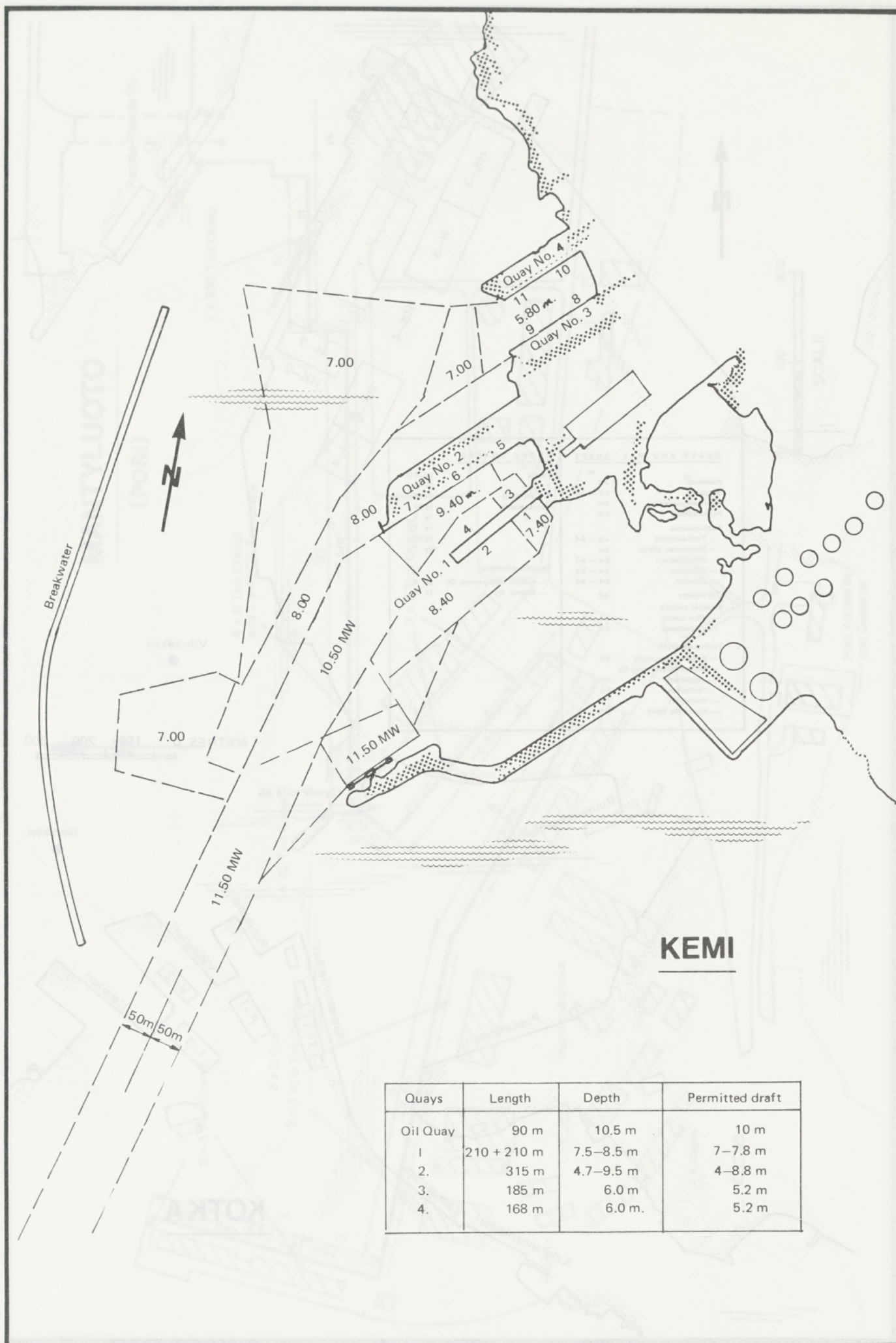
**HELSINKI**  
**SOUTH HARBOUR**

0 100 500 m

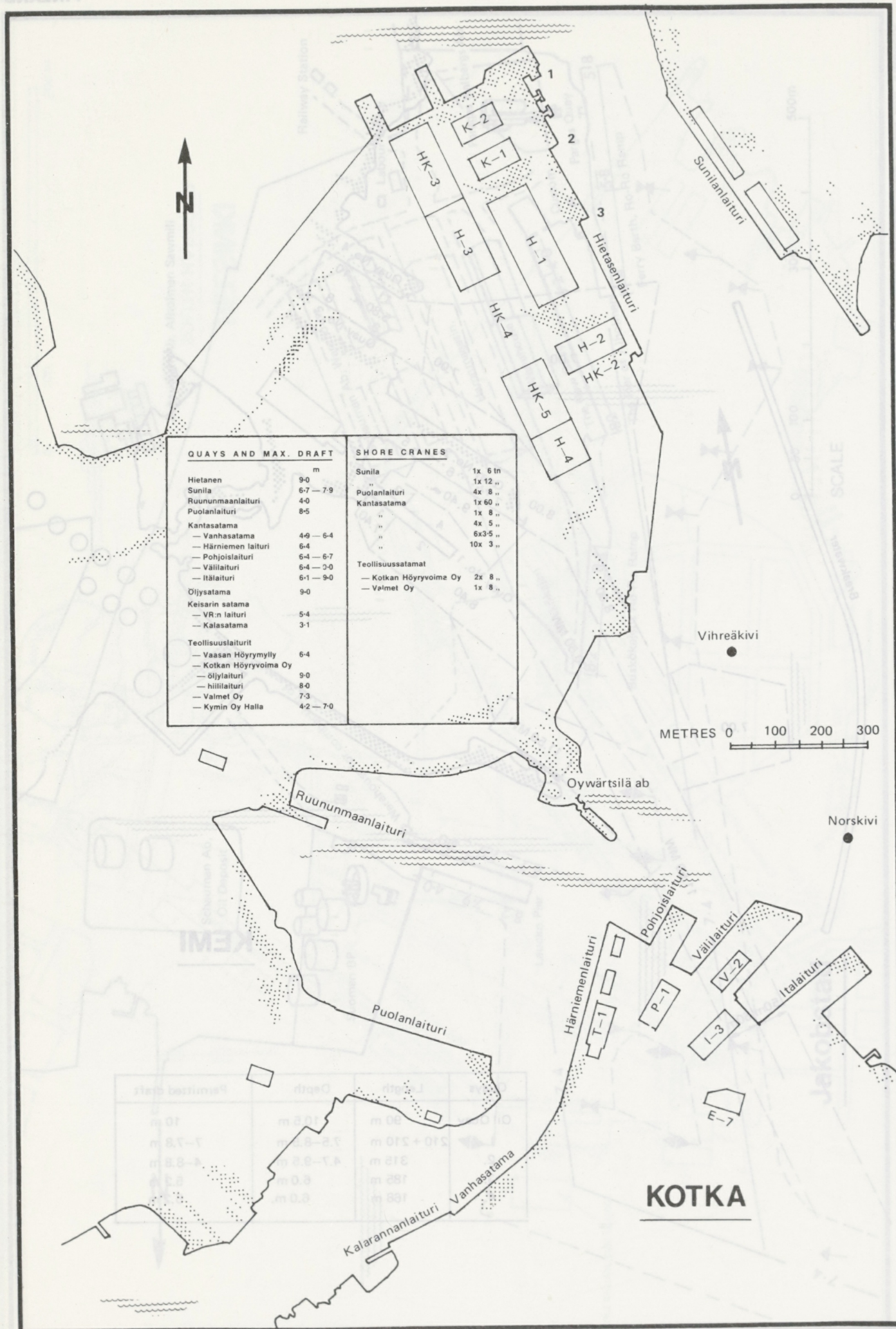






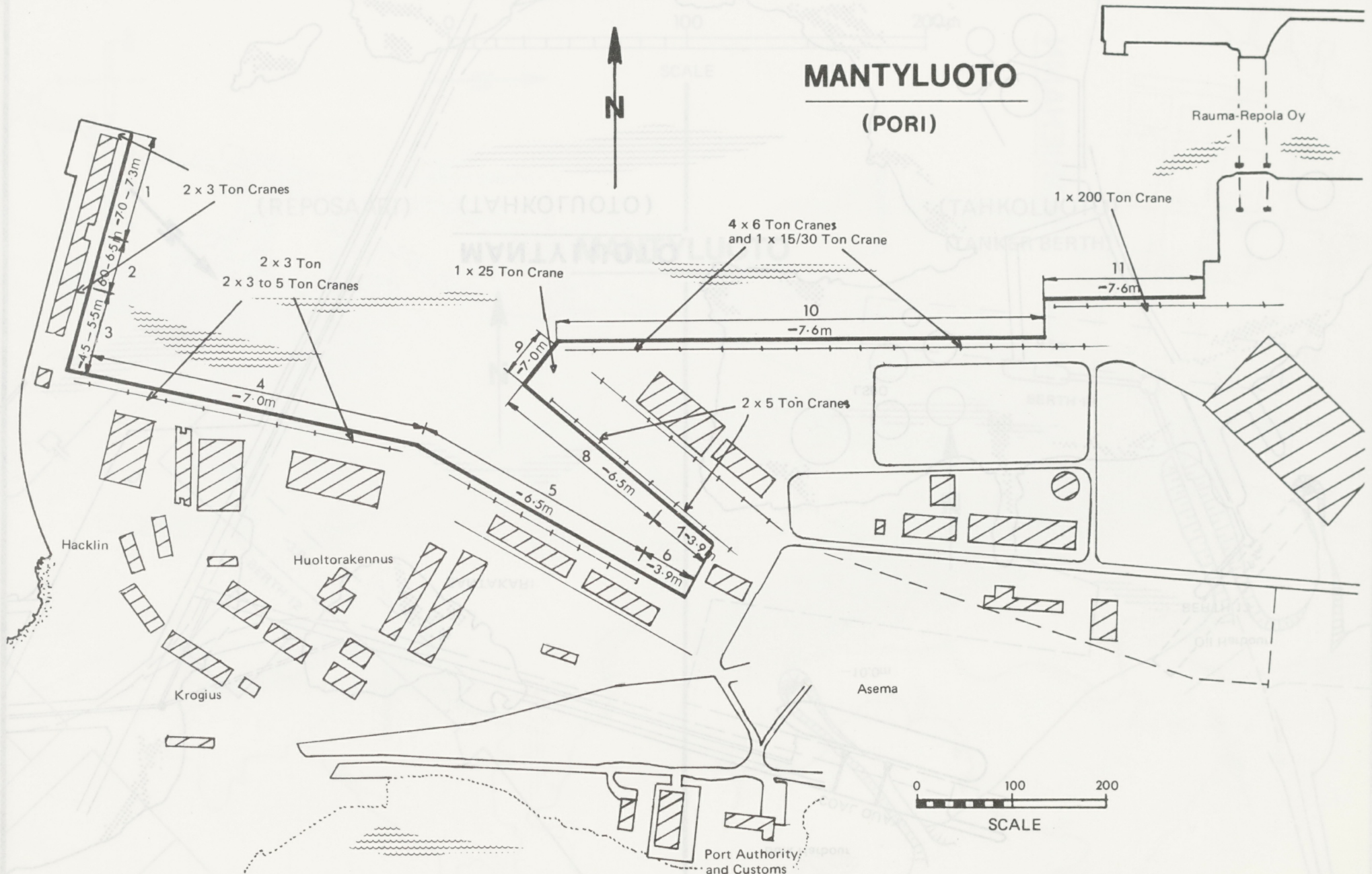






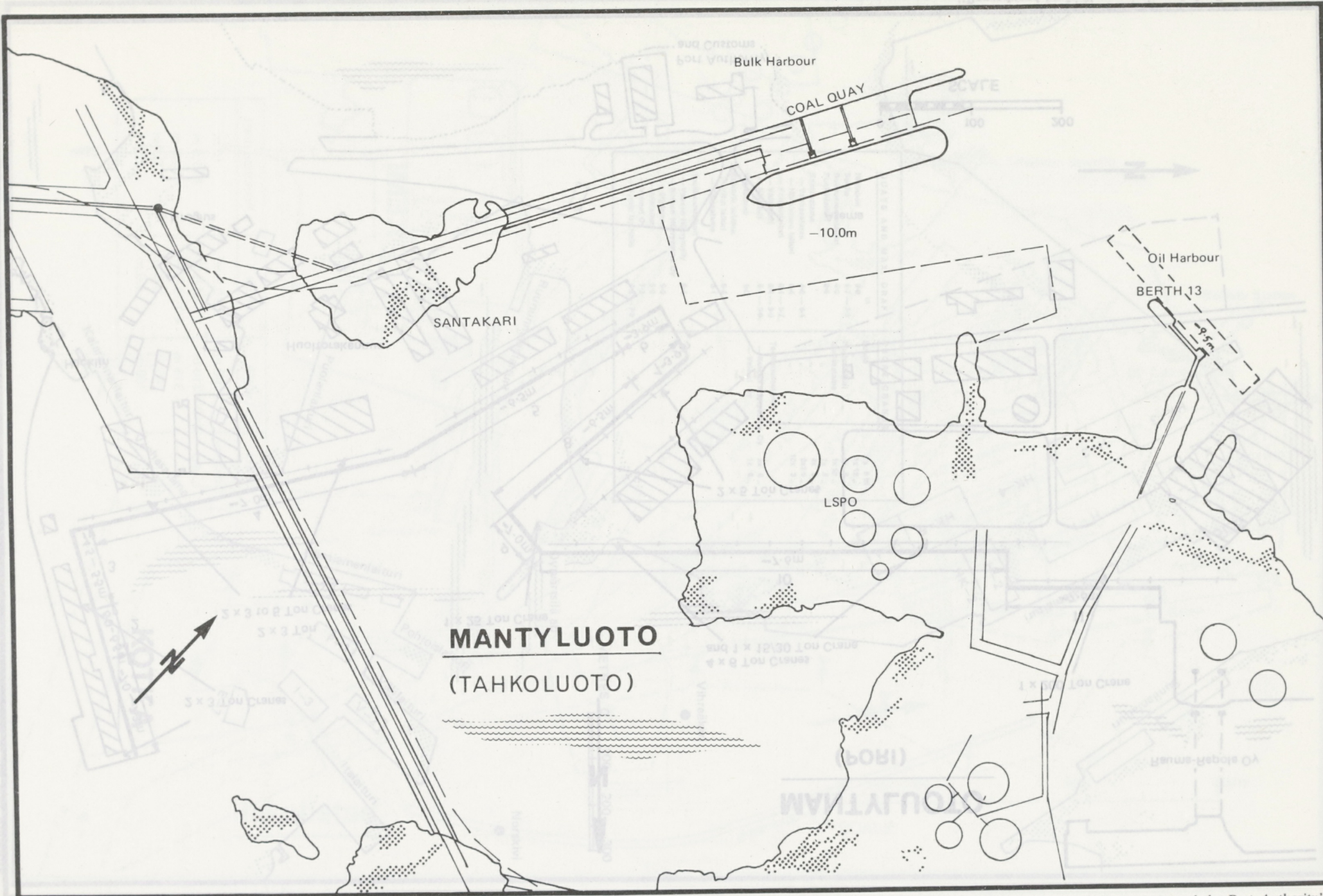


# MANTYLUOTO (PORI)

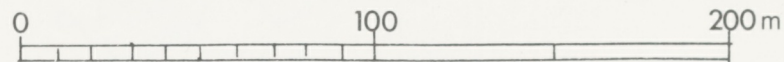


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SCALE

(REPOSAARI)

## MANTYLUOTO

(TAHKOLUOTO)

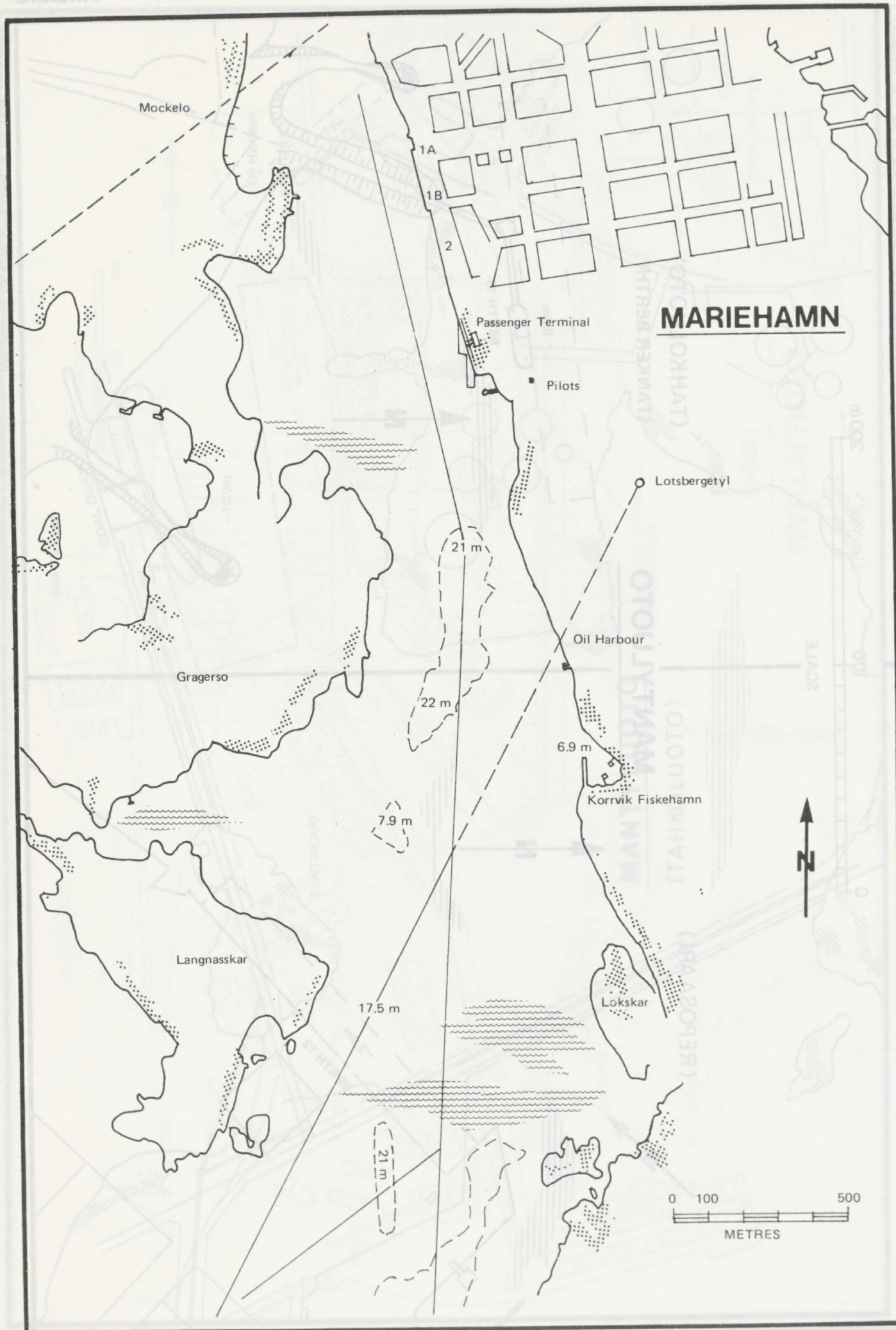
(TANKER BERTH)



BERTH 12  
-3.9m

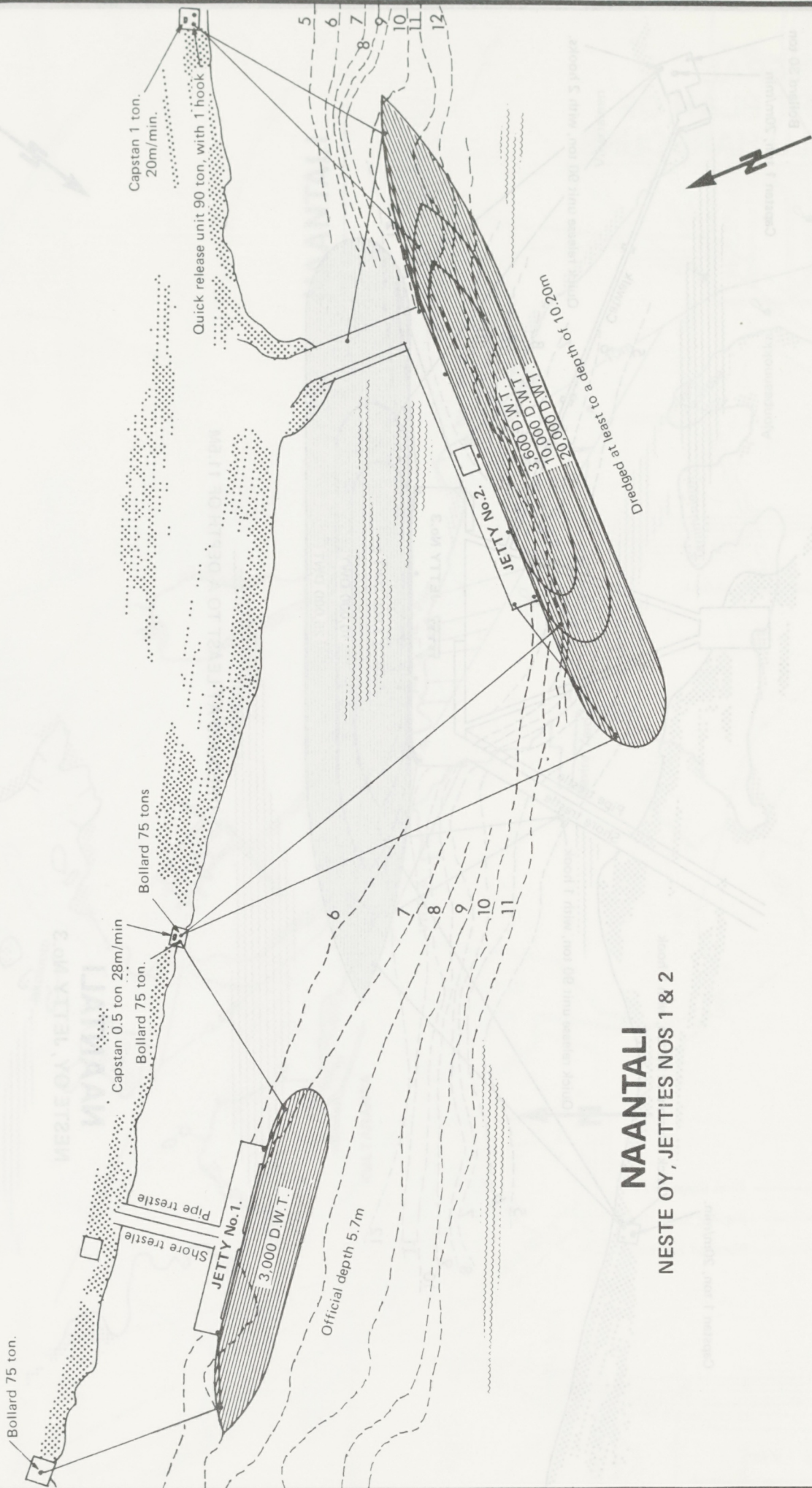
BERTH 13  
-9.5m





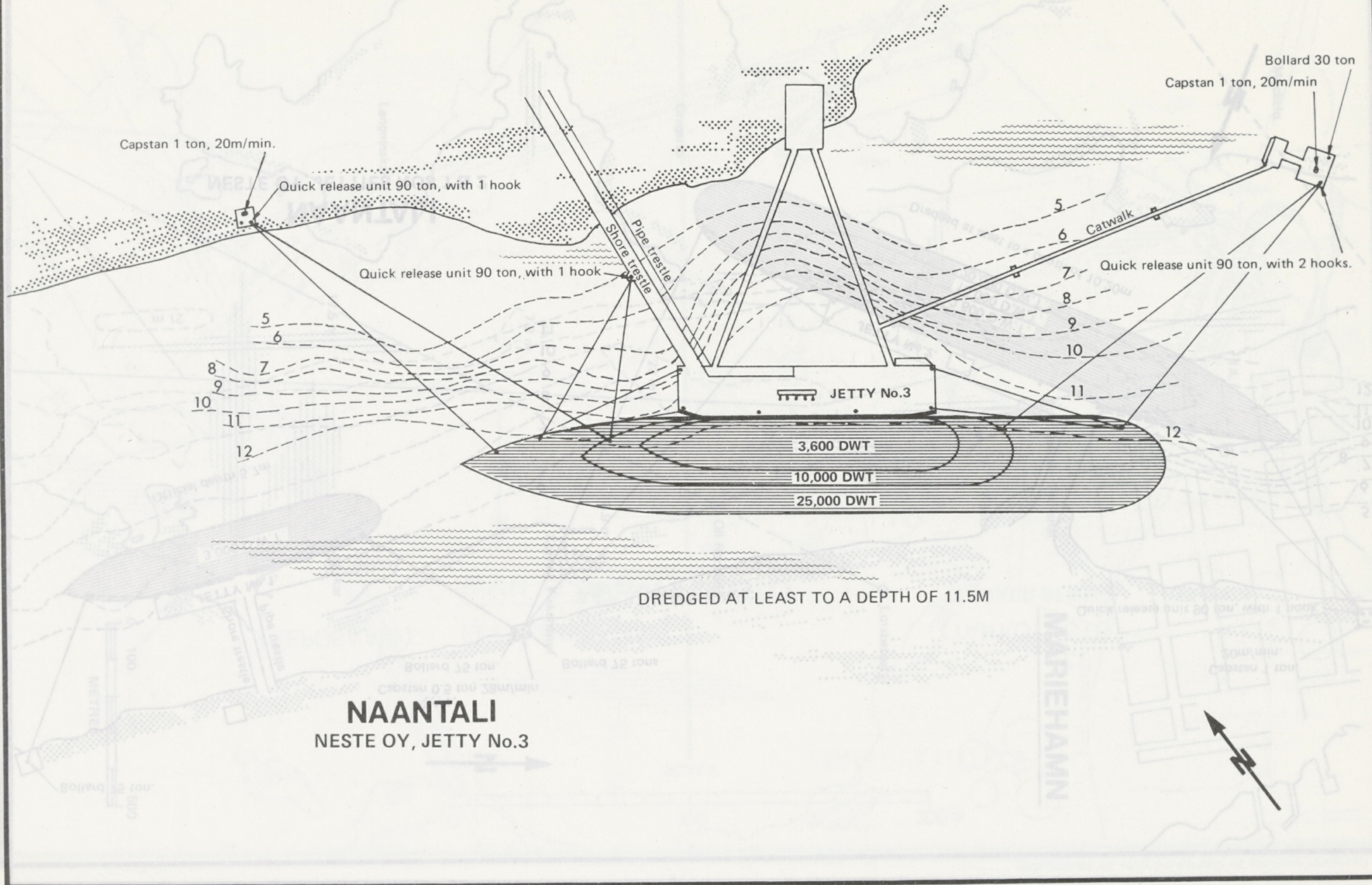
"Reproduced by kind permission of the Port Authority".



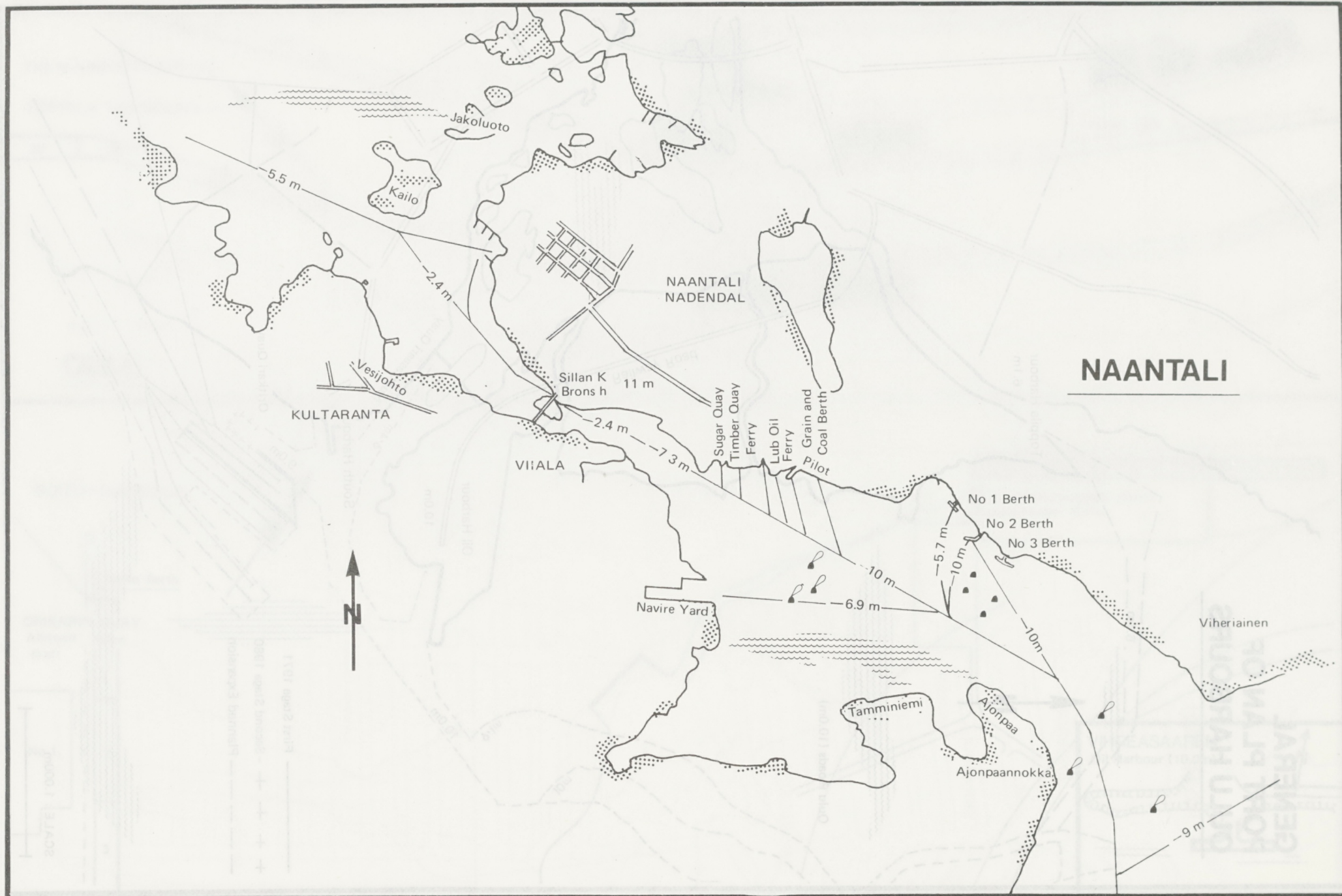


**NAANTALI**  
NESTE OY, JETTIES NOS 1 & 2





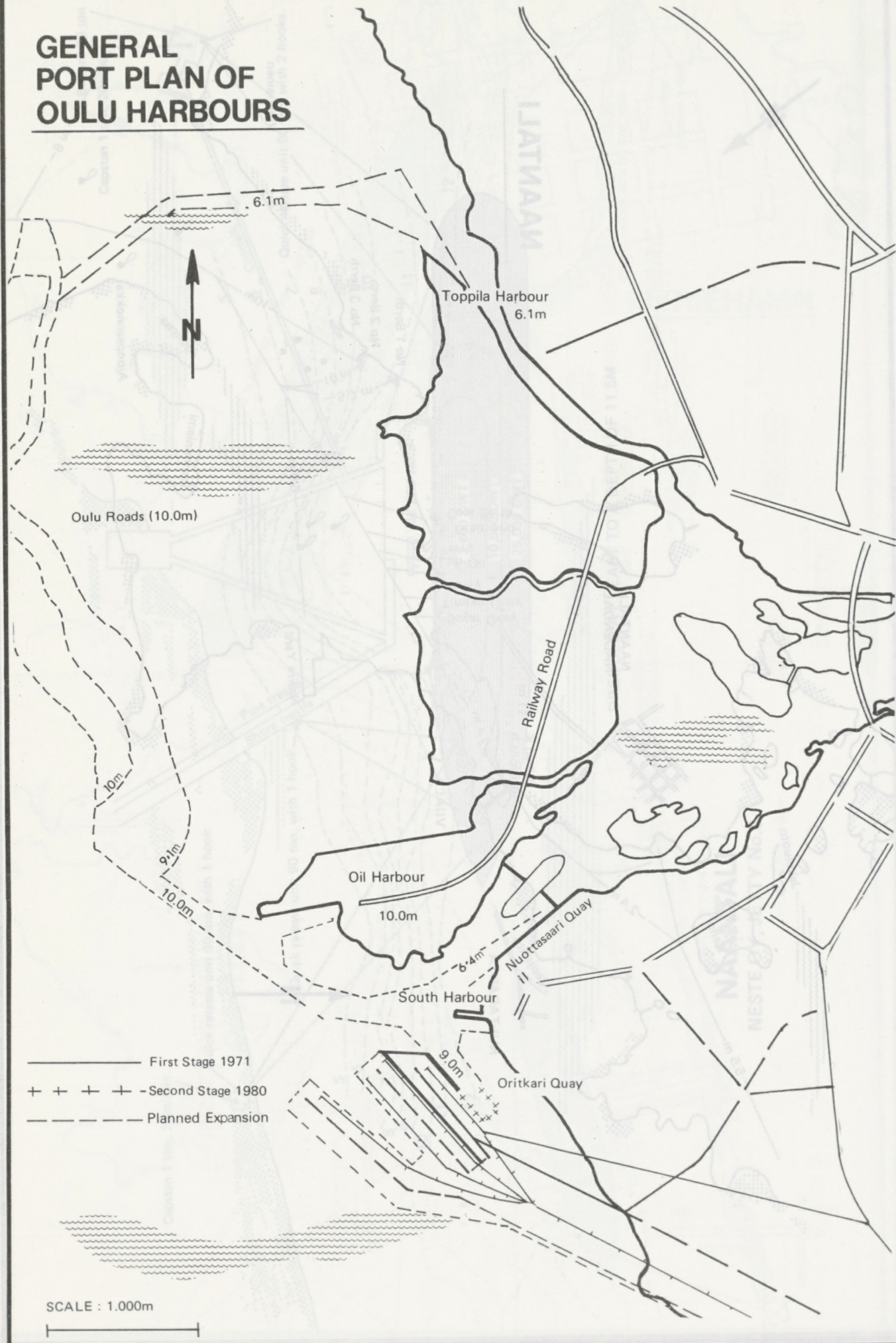




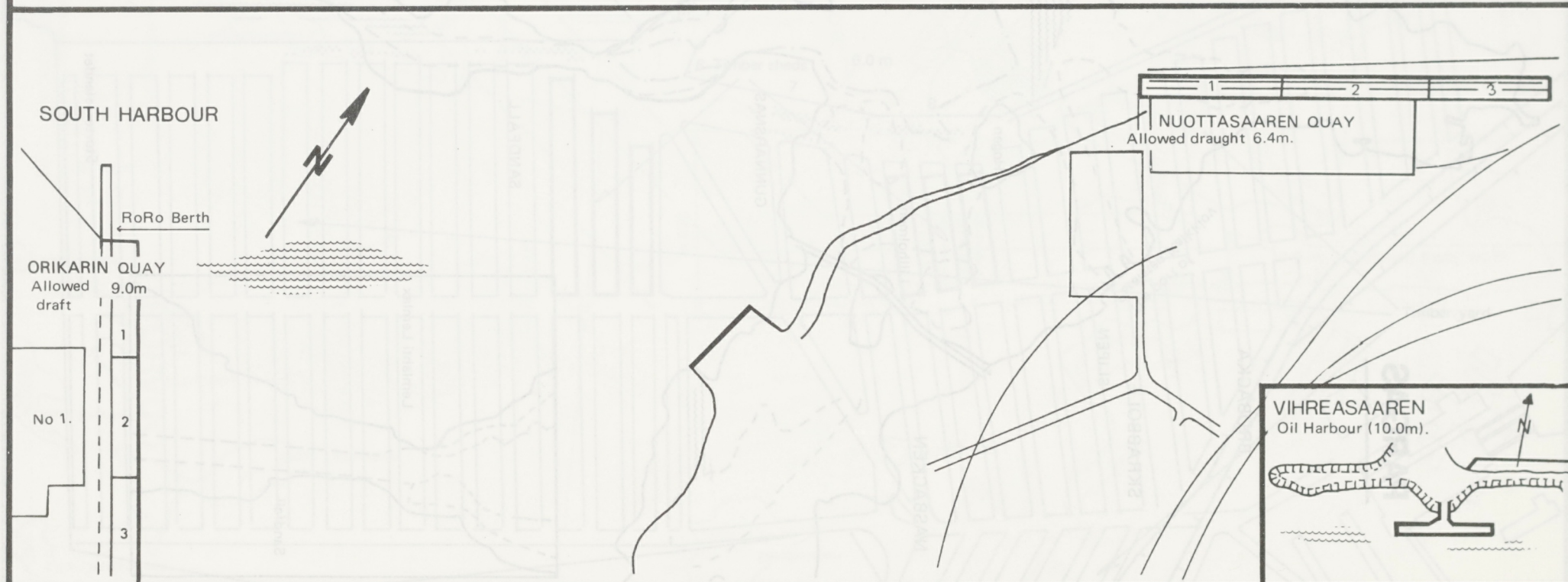
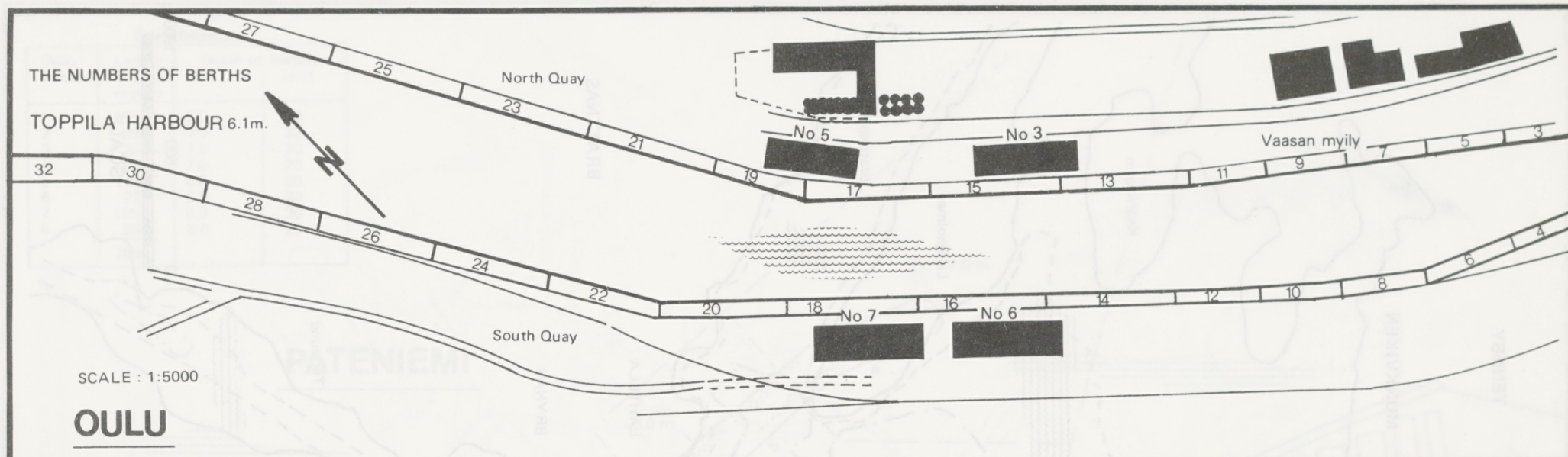
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# GENERAL PORT PLAN OF OULU HARBOURS



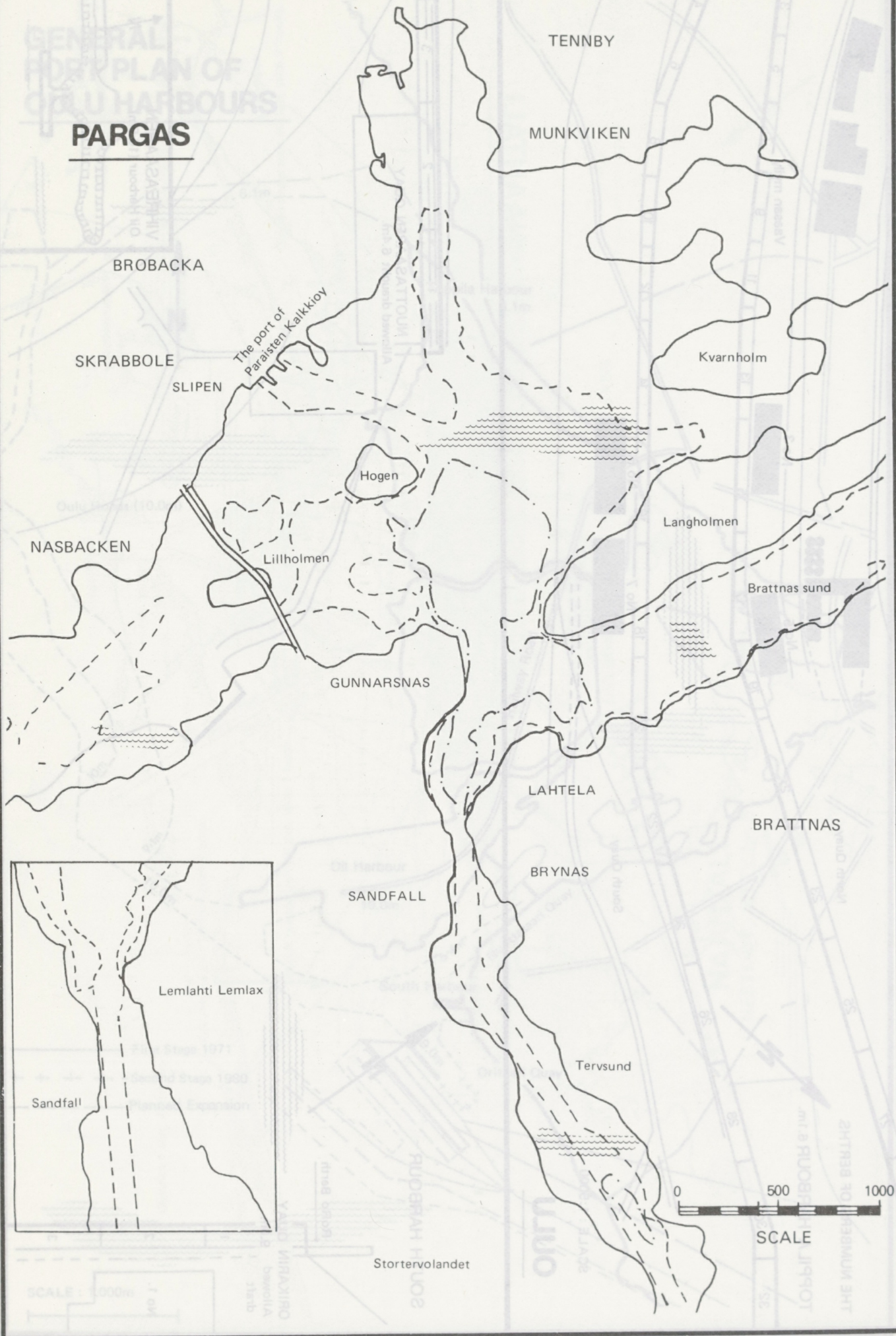




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# **PARGAS**



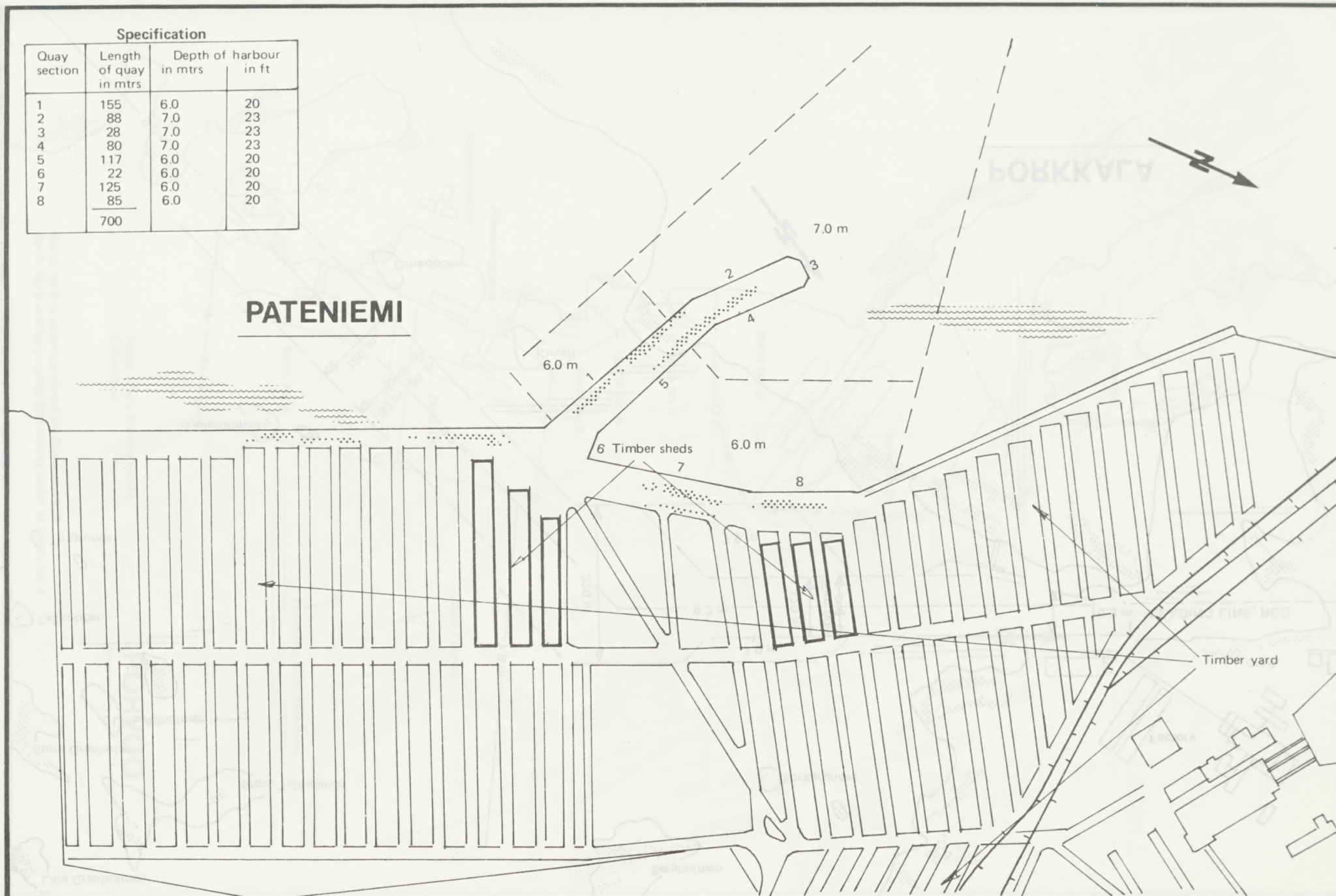
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# Specification

Quay section	Length of quay in mtrs	Depth of harbour	
		in mtrs	in ft
1	155	6.0	20
2	88	7.0	23
3	28	7.0	23
4	80	7.0	23
5	117	6.0	20
6	22	6.0	20
7	125	6.0	20
8	85	6.0	20
	700		

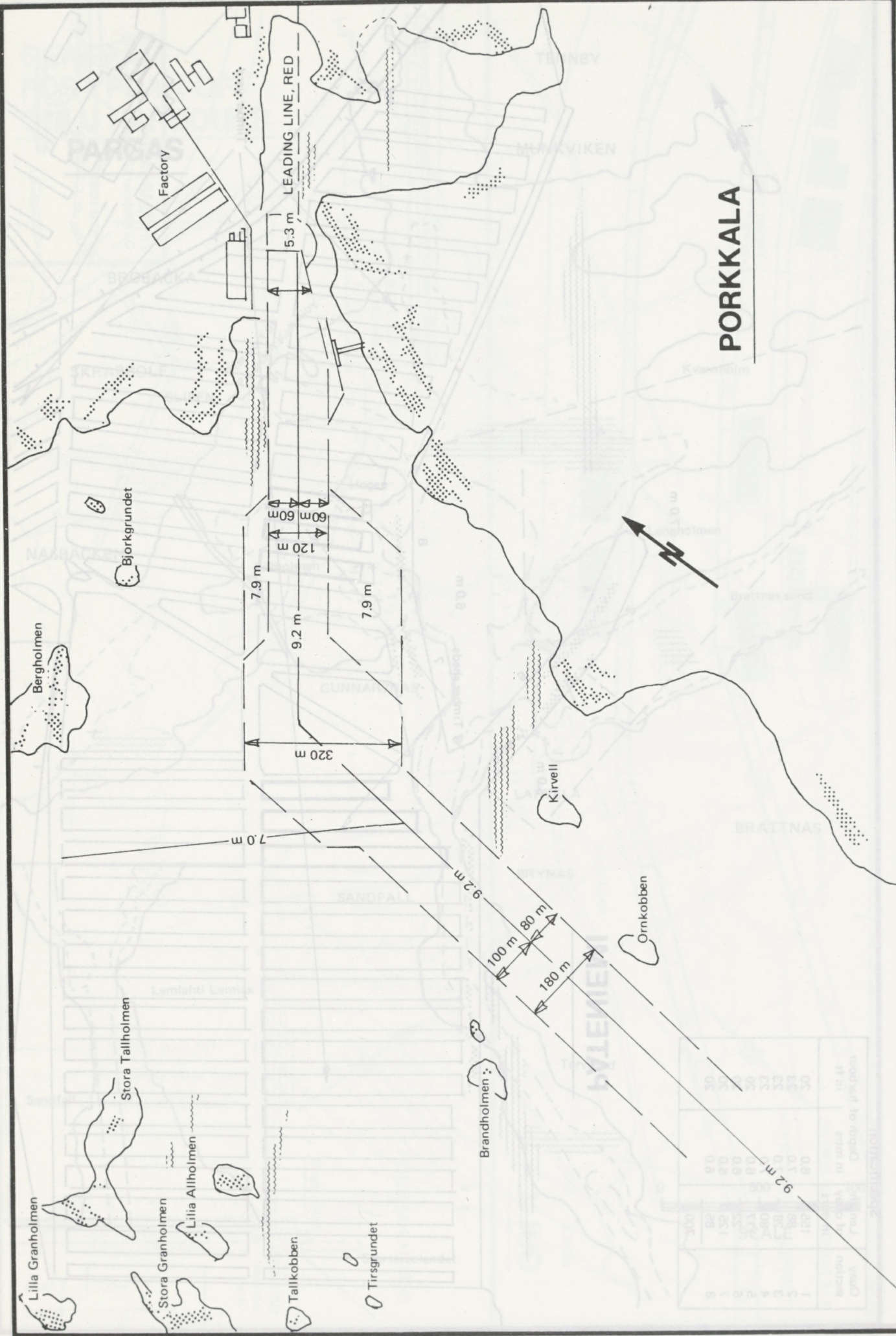
## PATENIEMI



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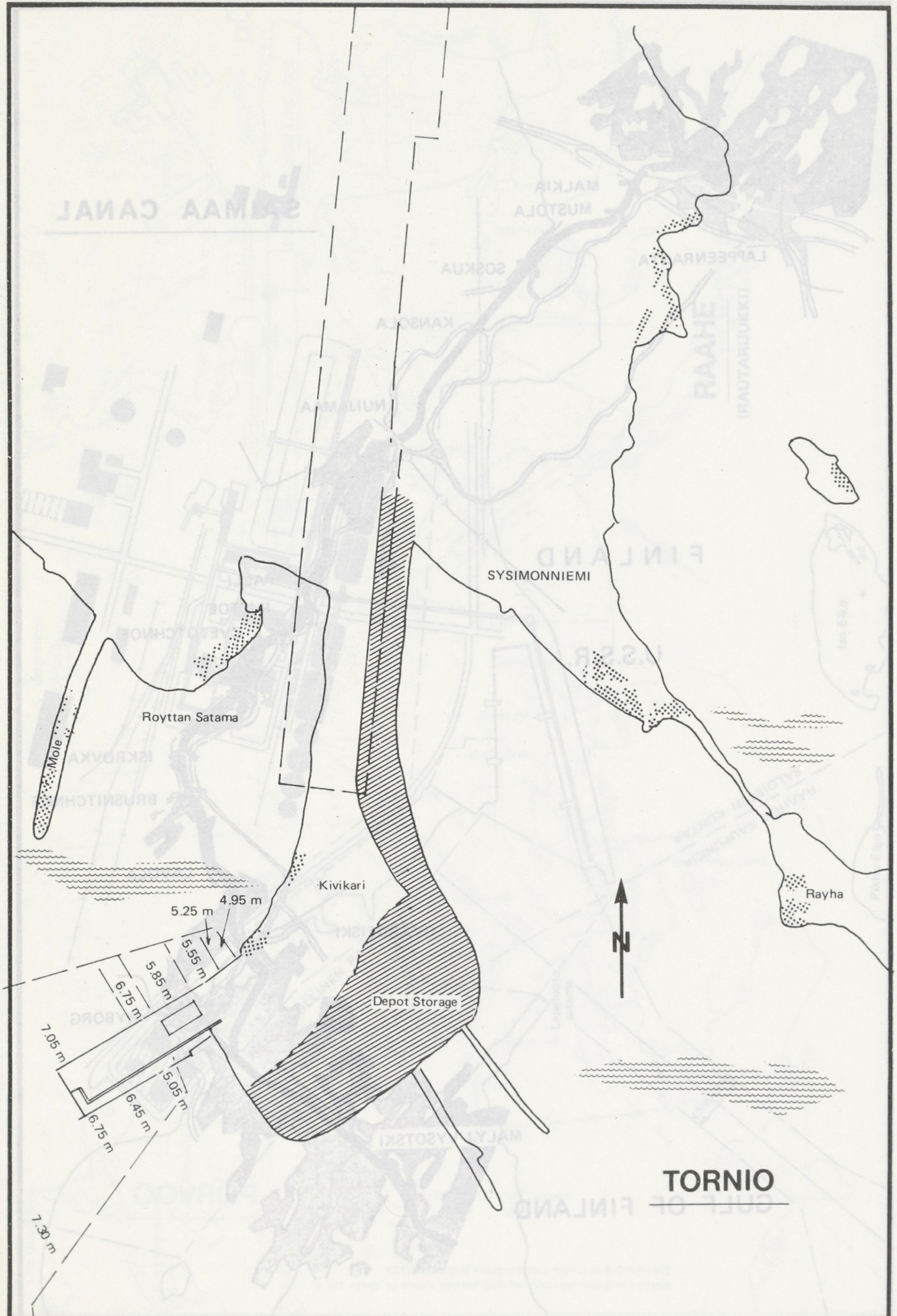
# PORKKALA



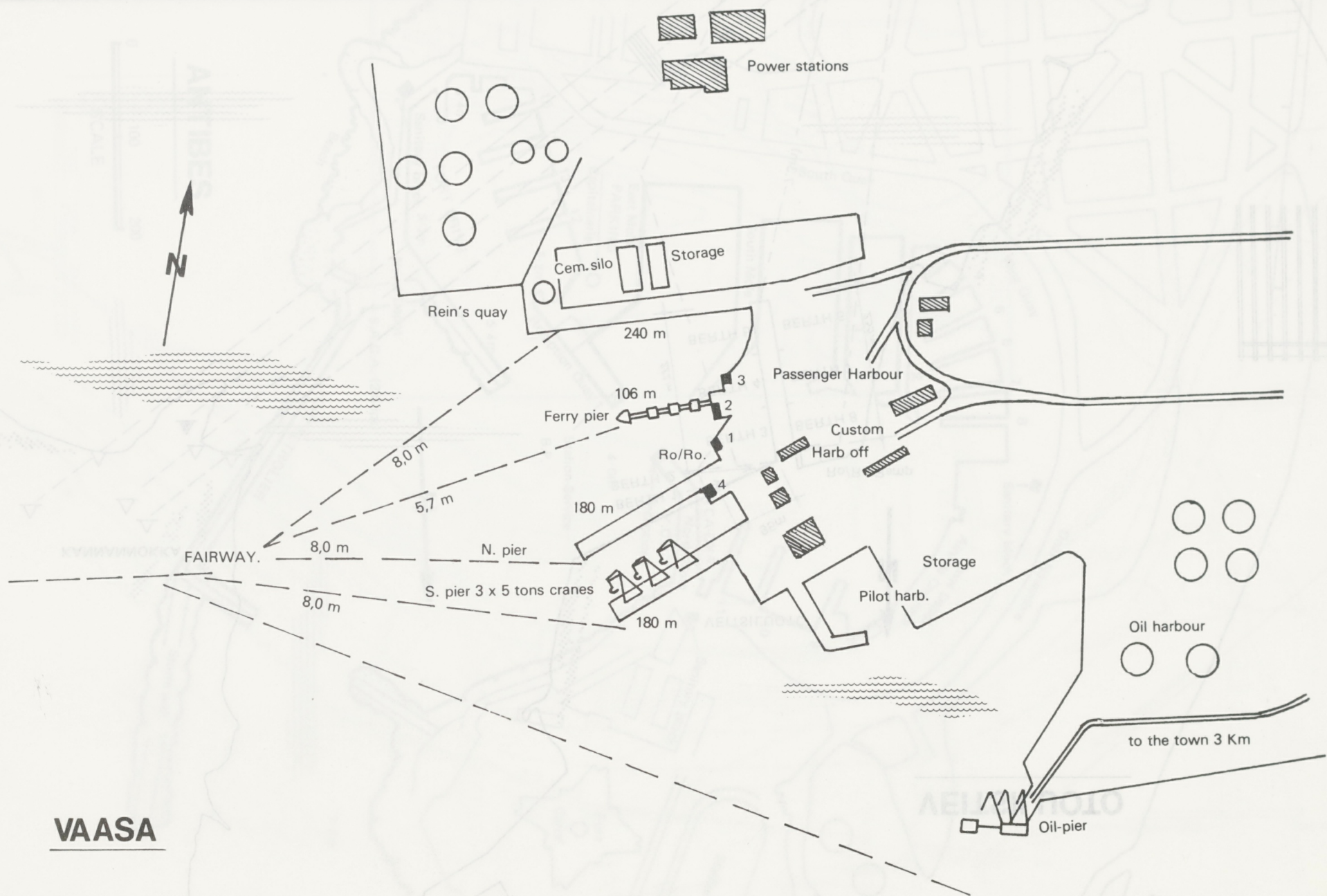






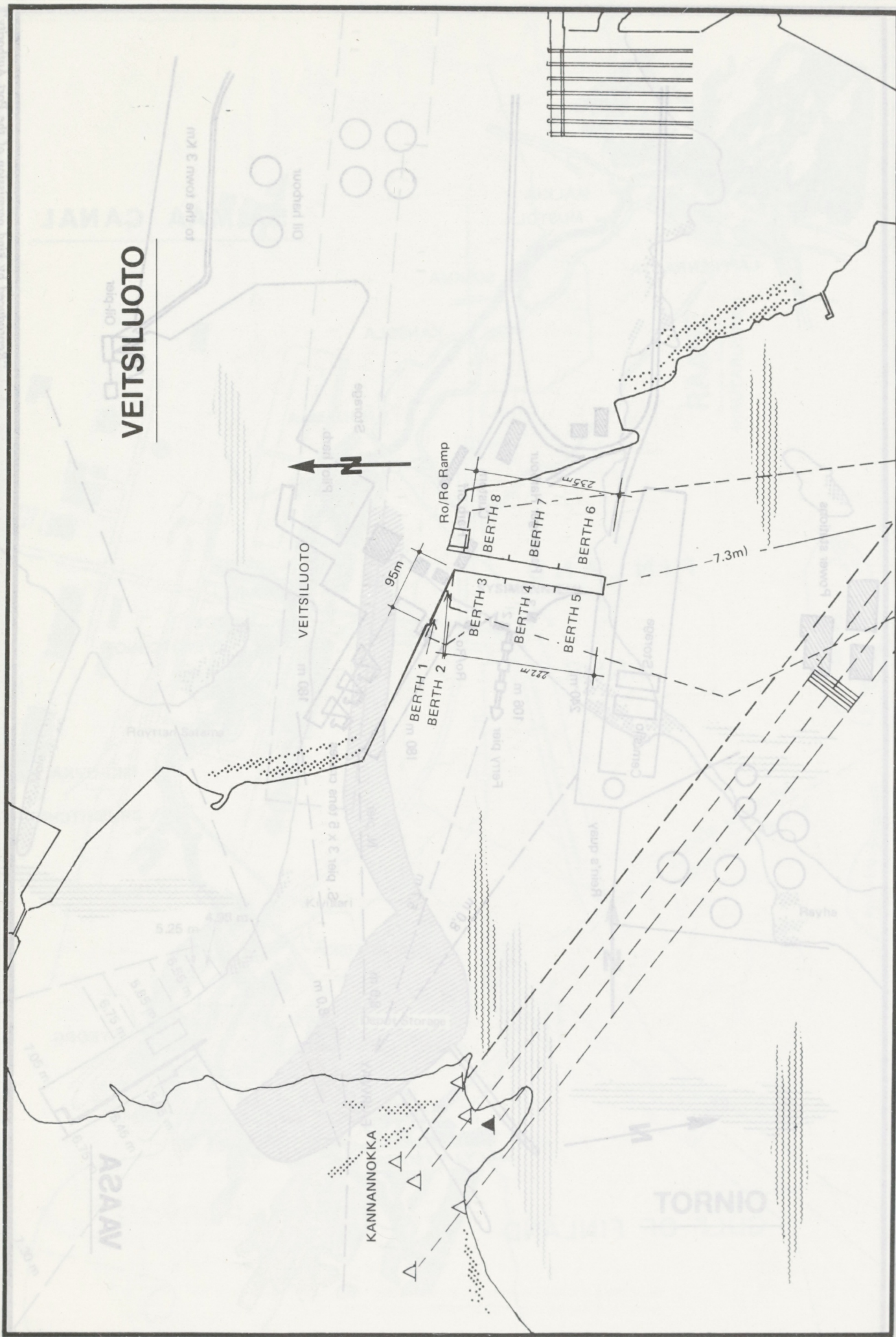






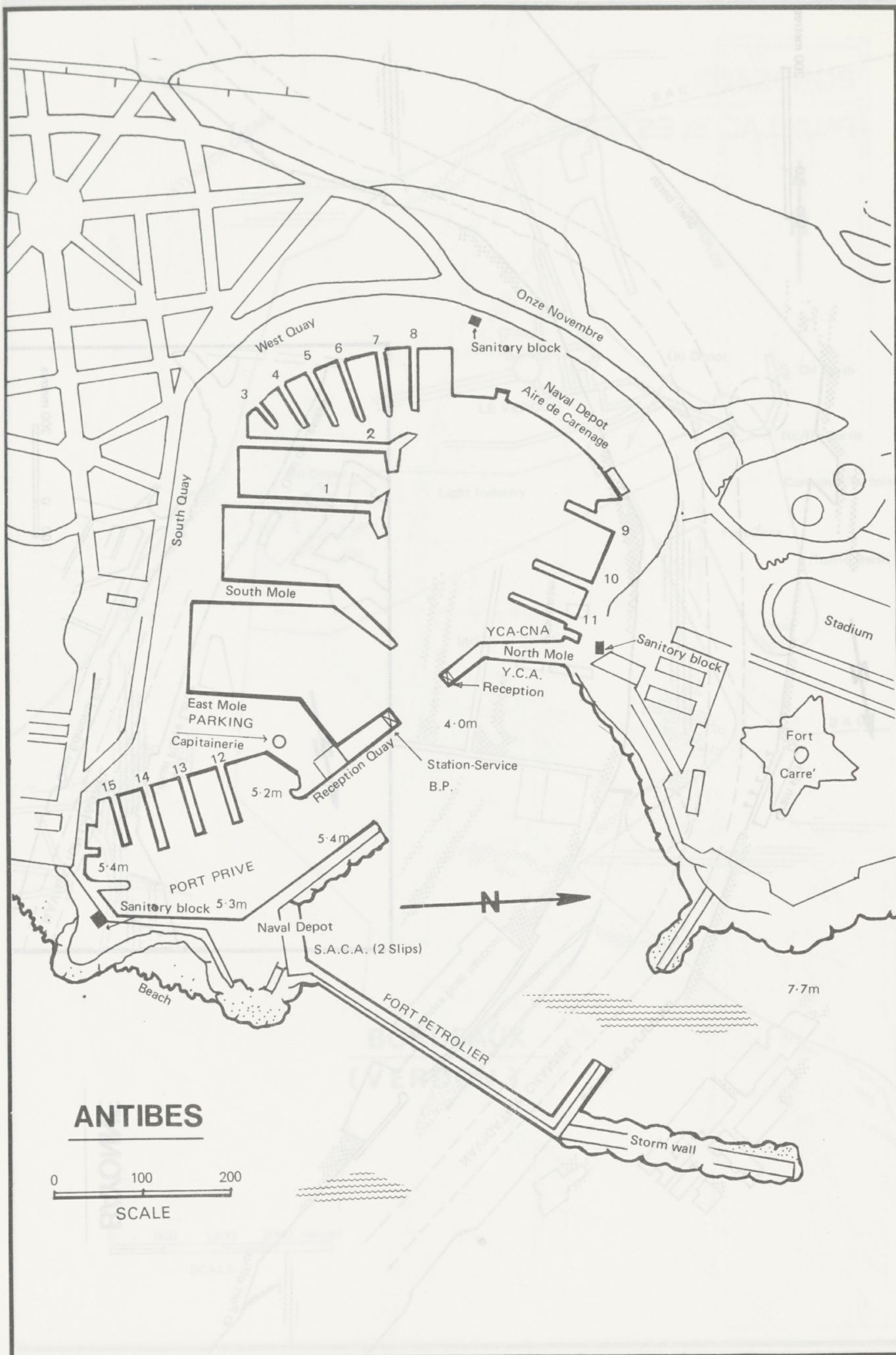
**VAASA**



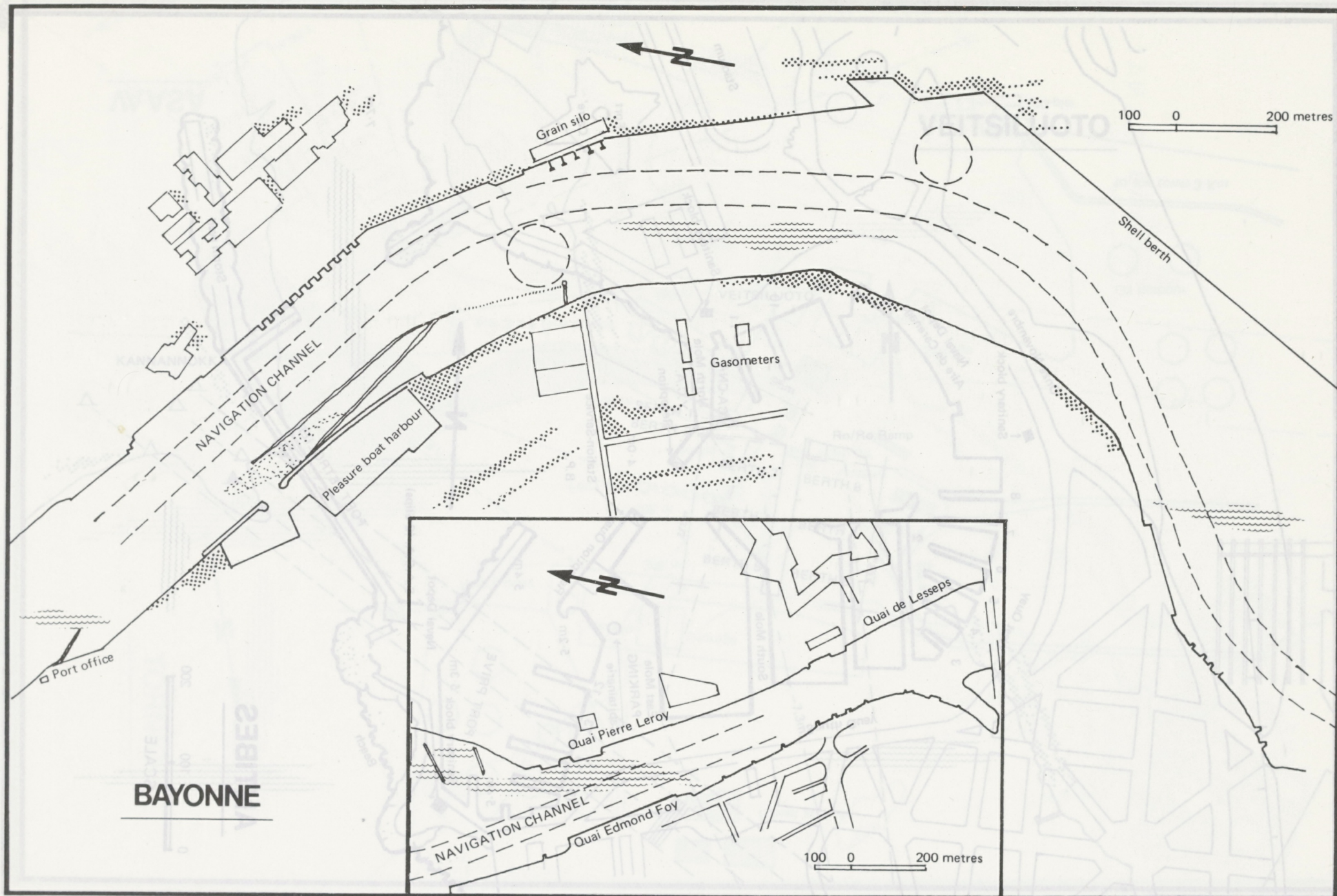


# VEITSILUOTO

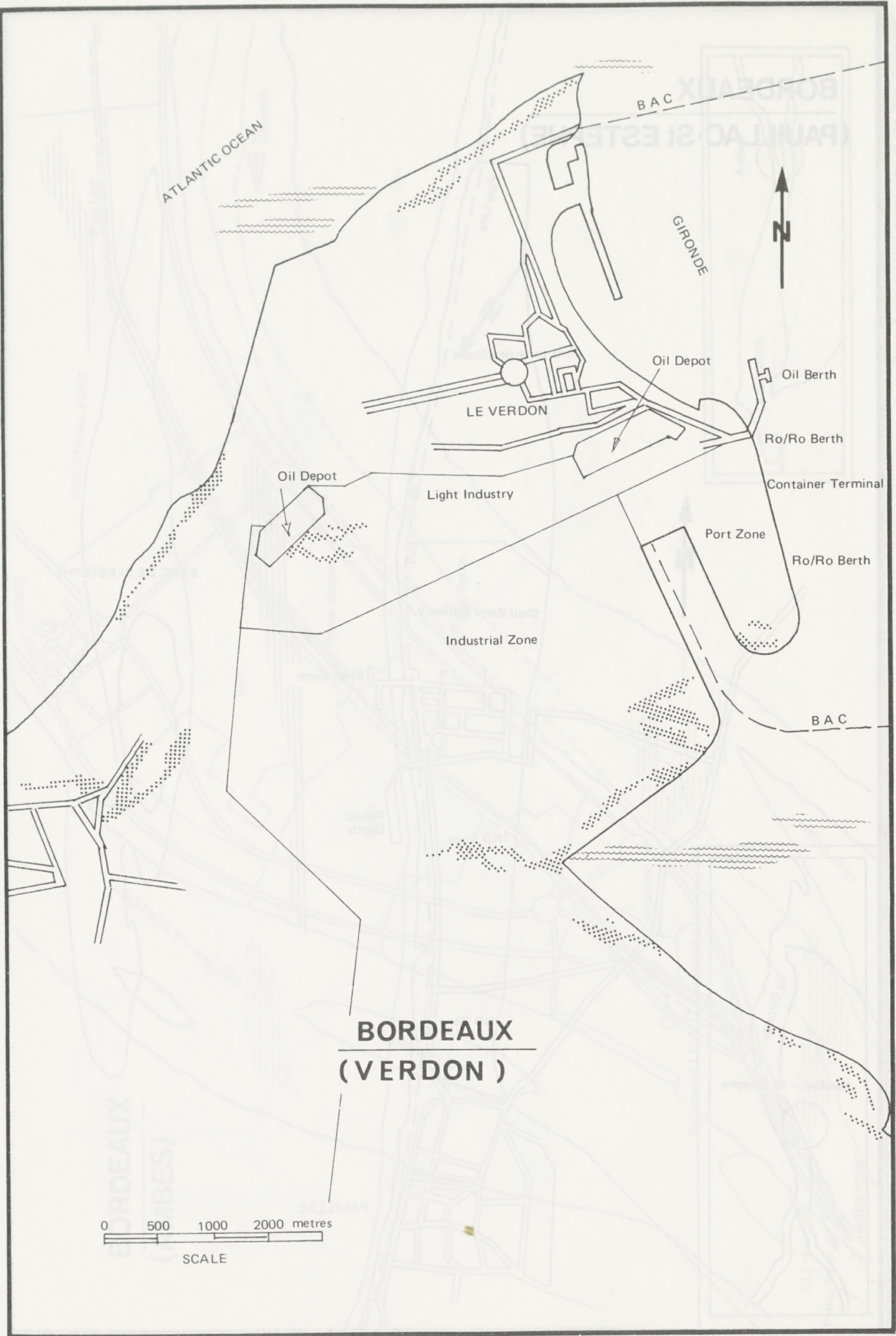






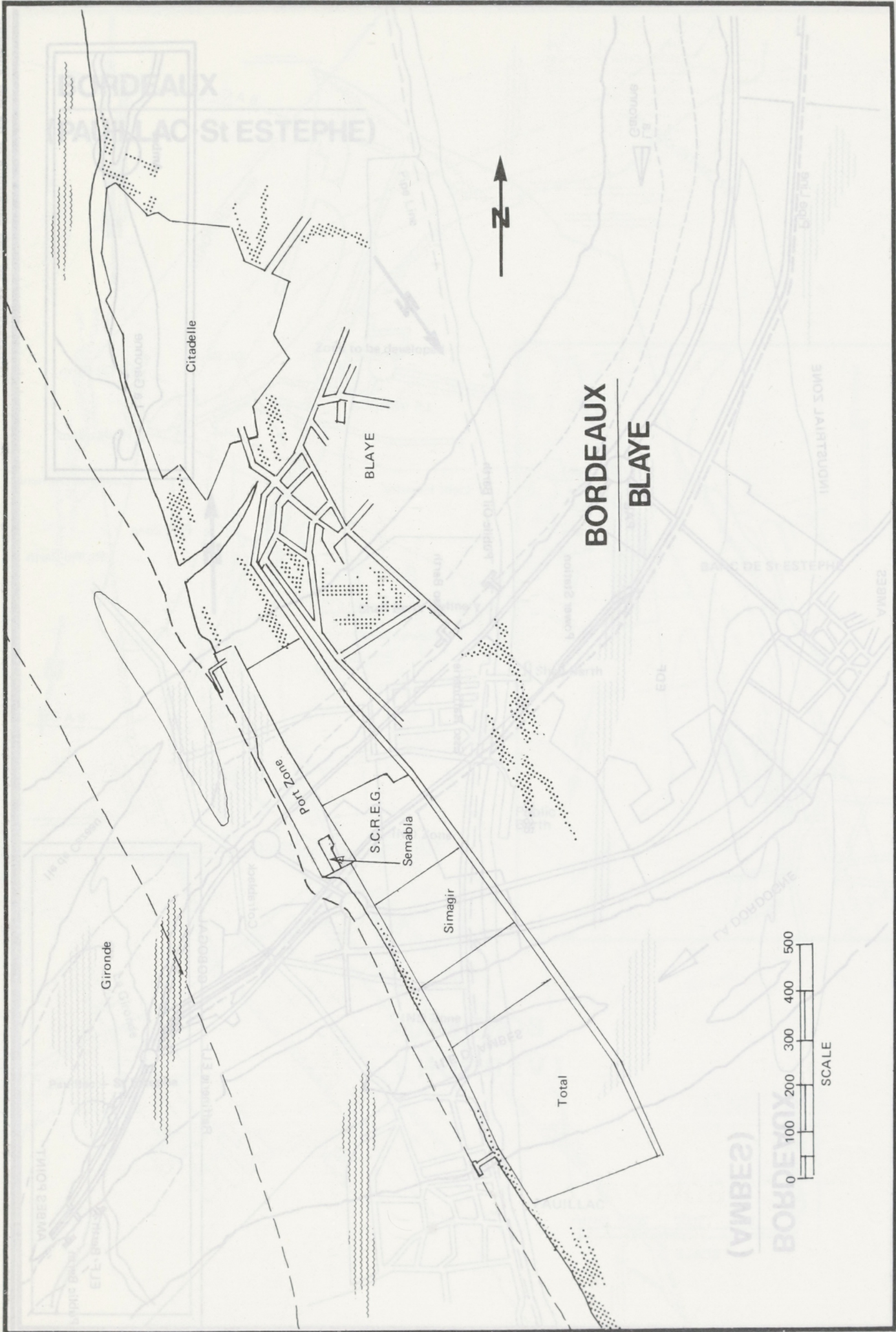




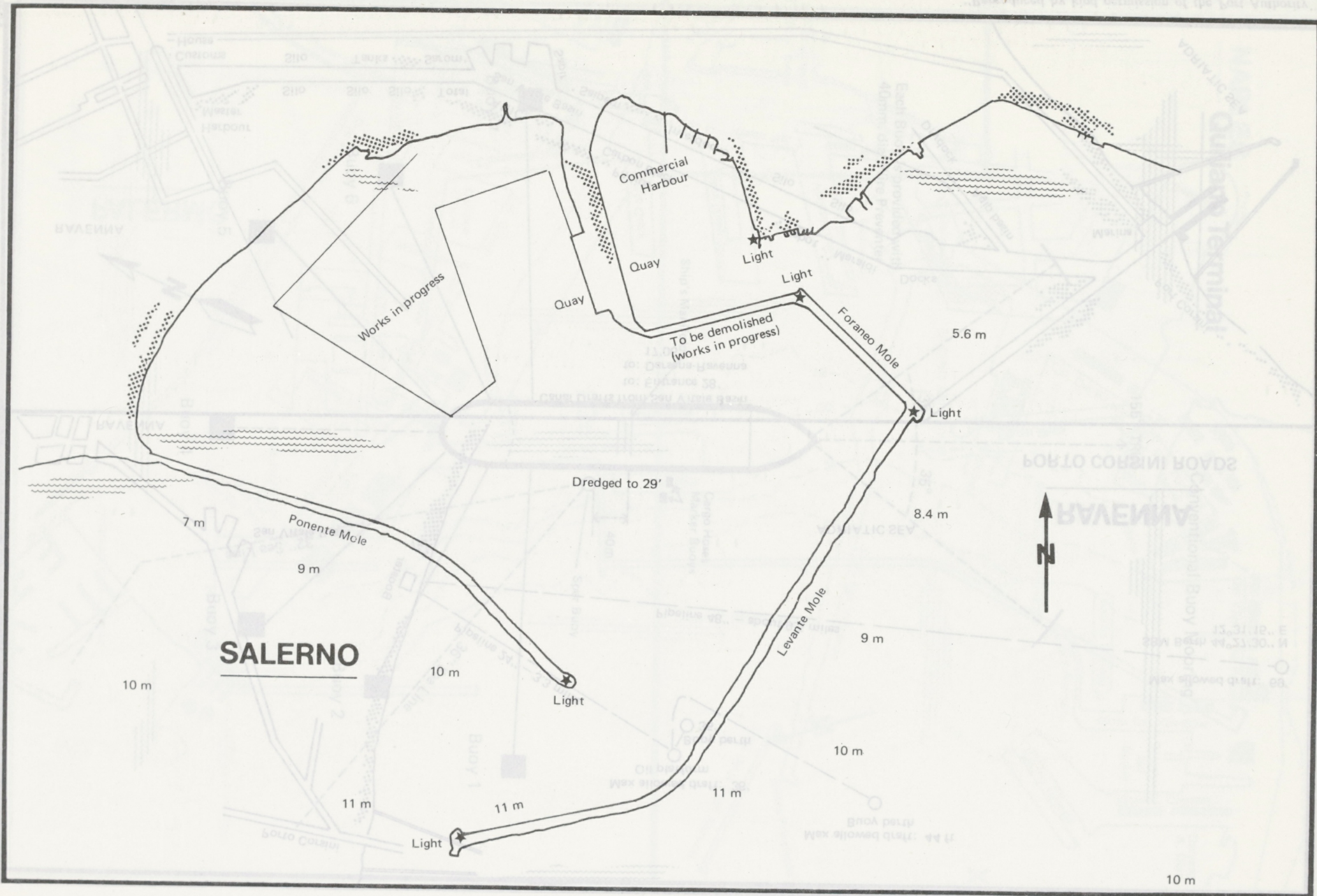


**BORDEAUX  
(VERDON)**

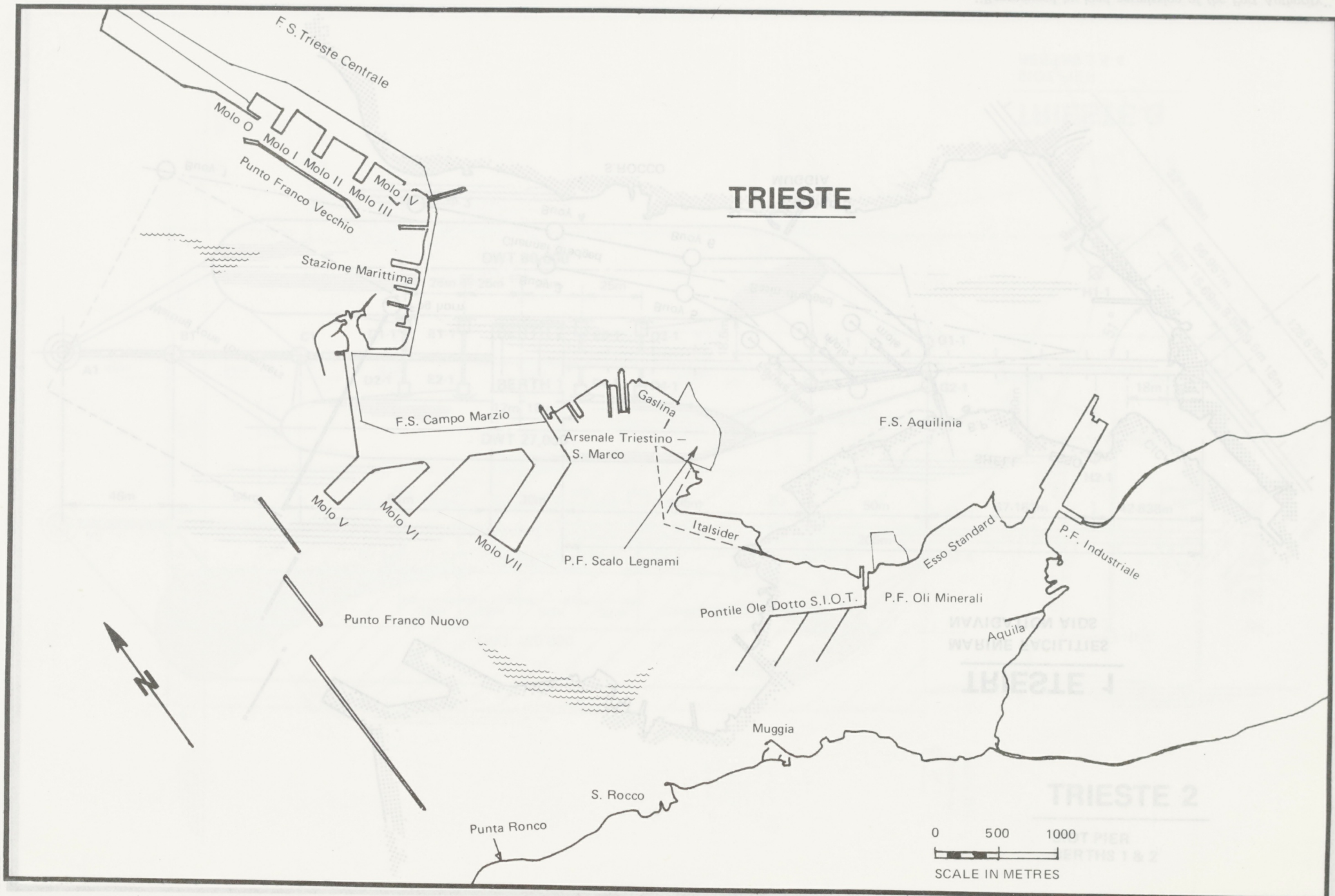










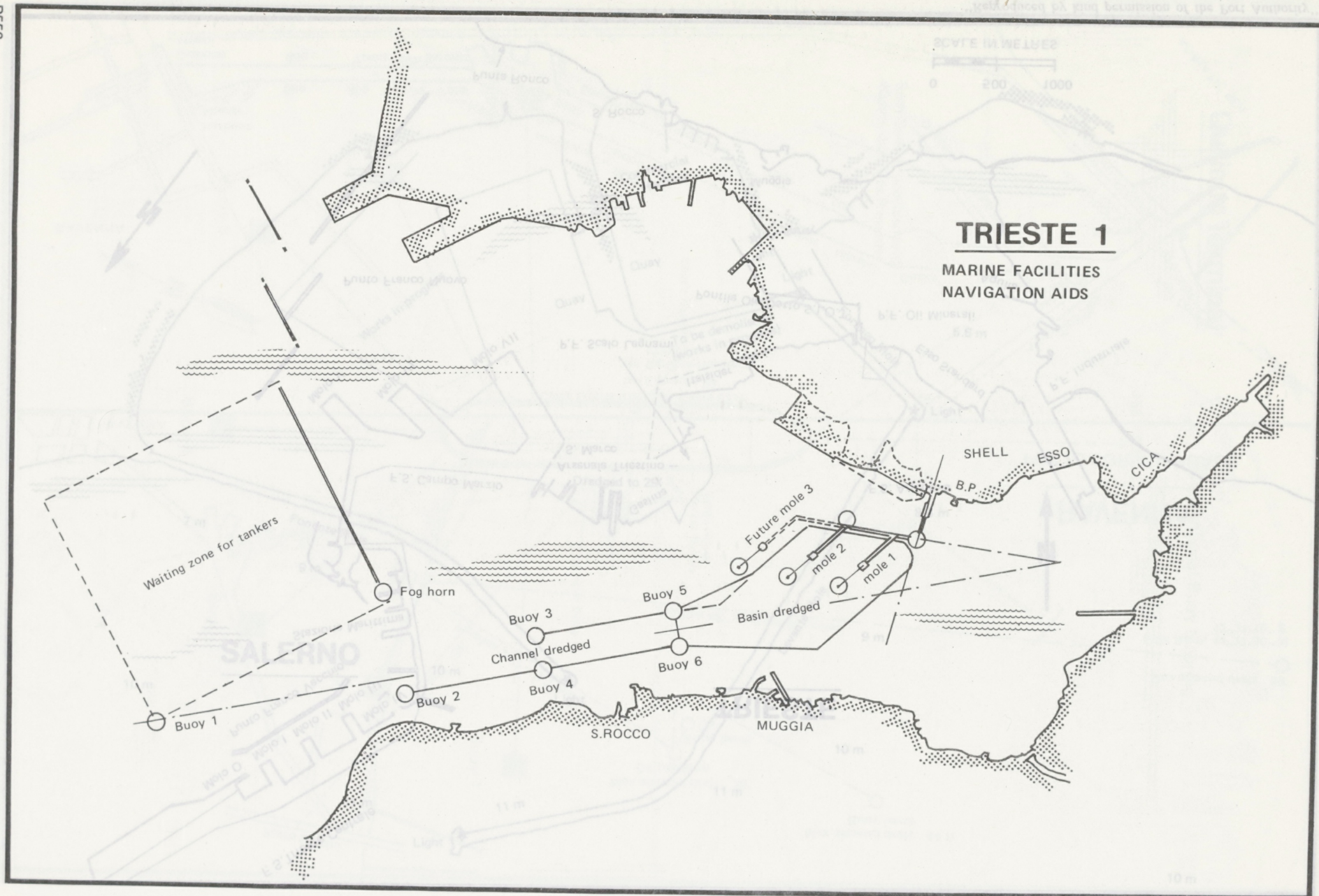


# TRIESTE

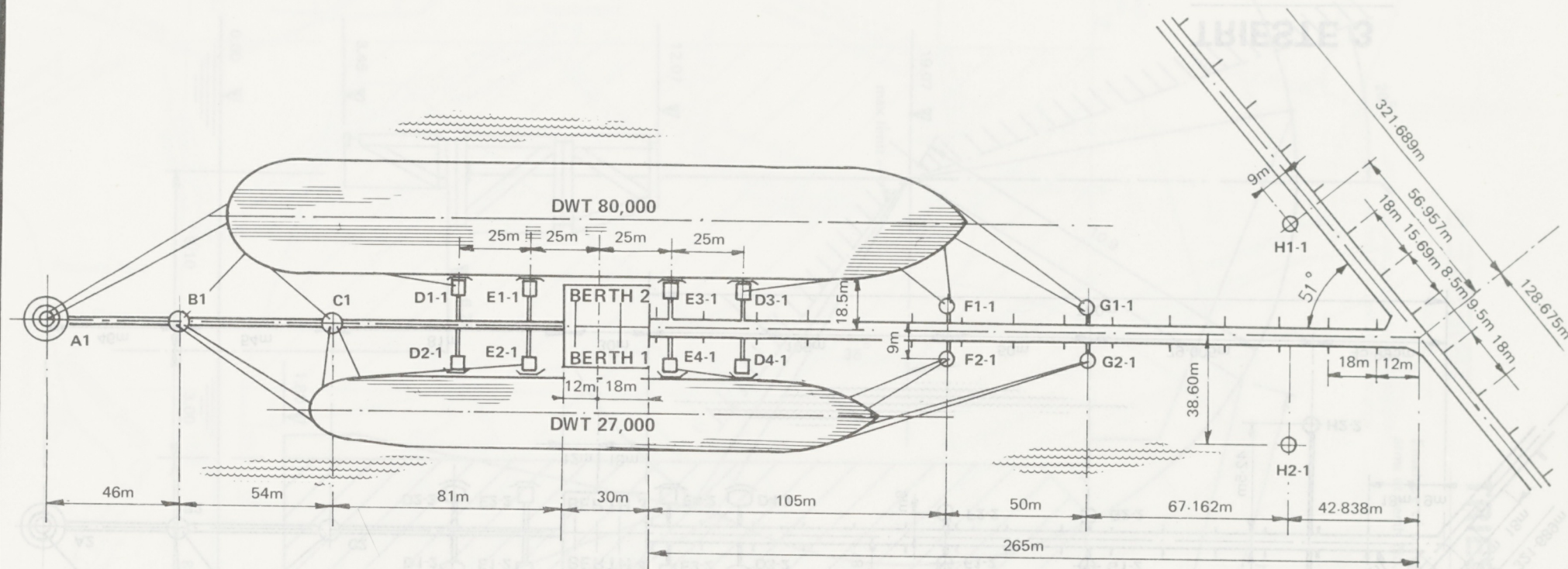
0 500 1000  
SCALE IN METRES

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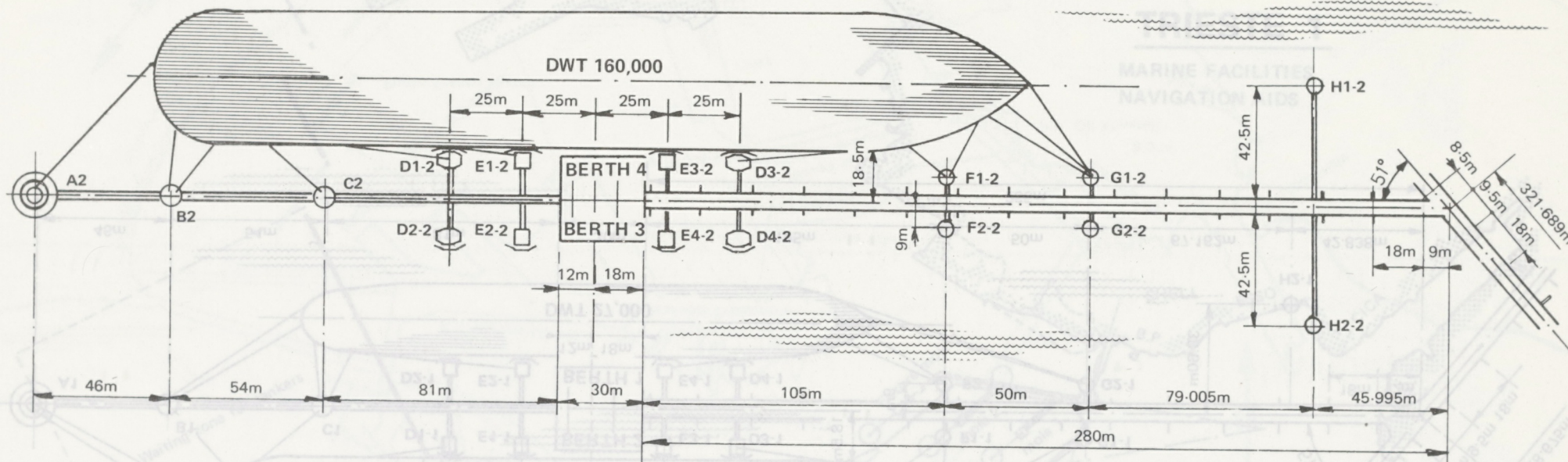




## TRIESTE 2

SIOT PIER  
BERTHS 1 & 2





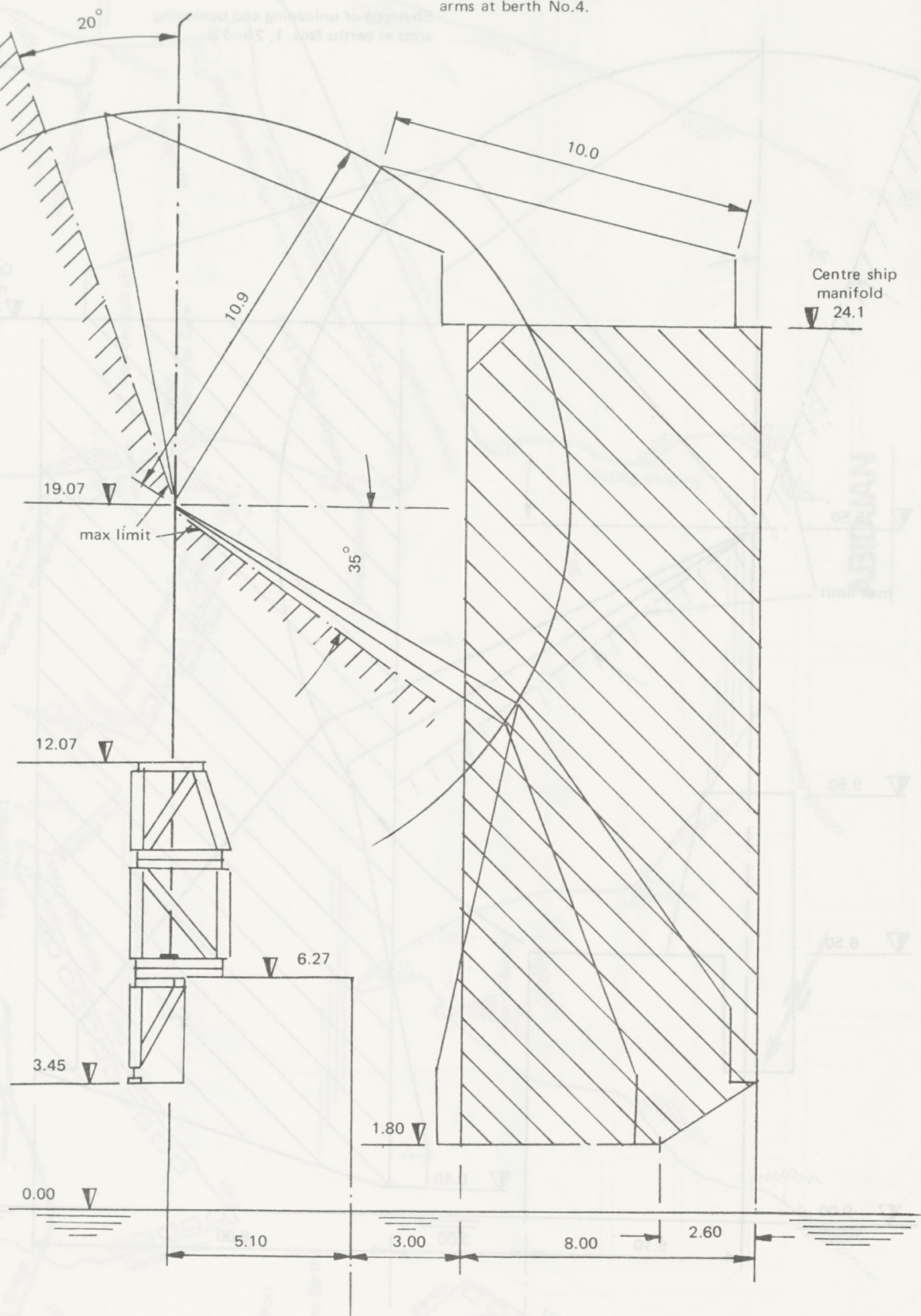
## TRIESTE 3

SIOT PIER  
BERTHS 3 & 4



# TRIESTE 4

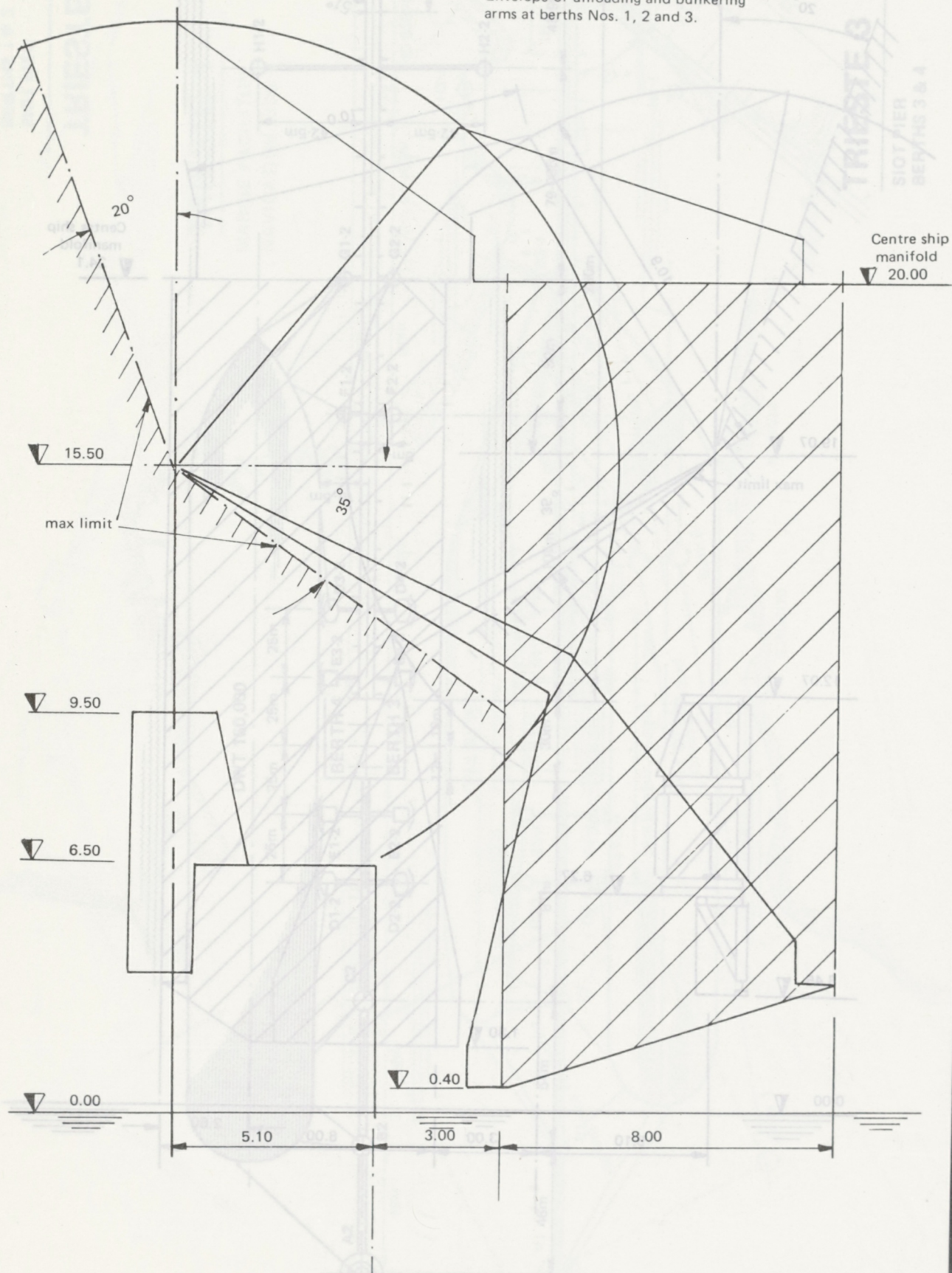
Envelope of unloading and bunkering  
arms at berth No.4.



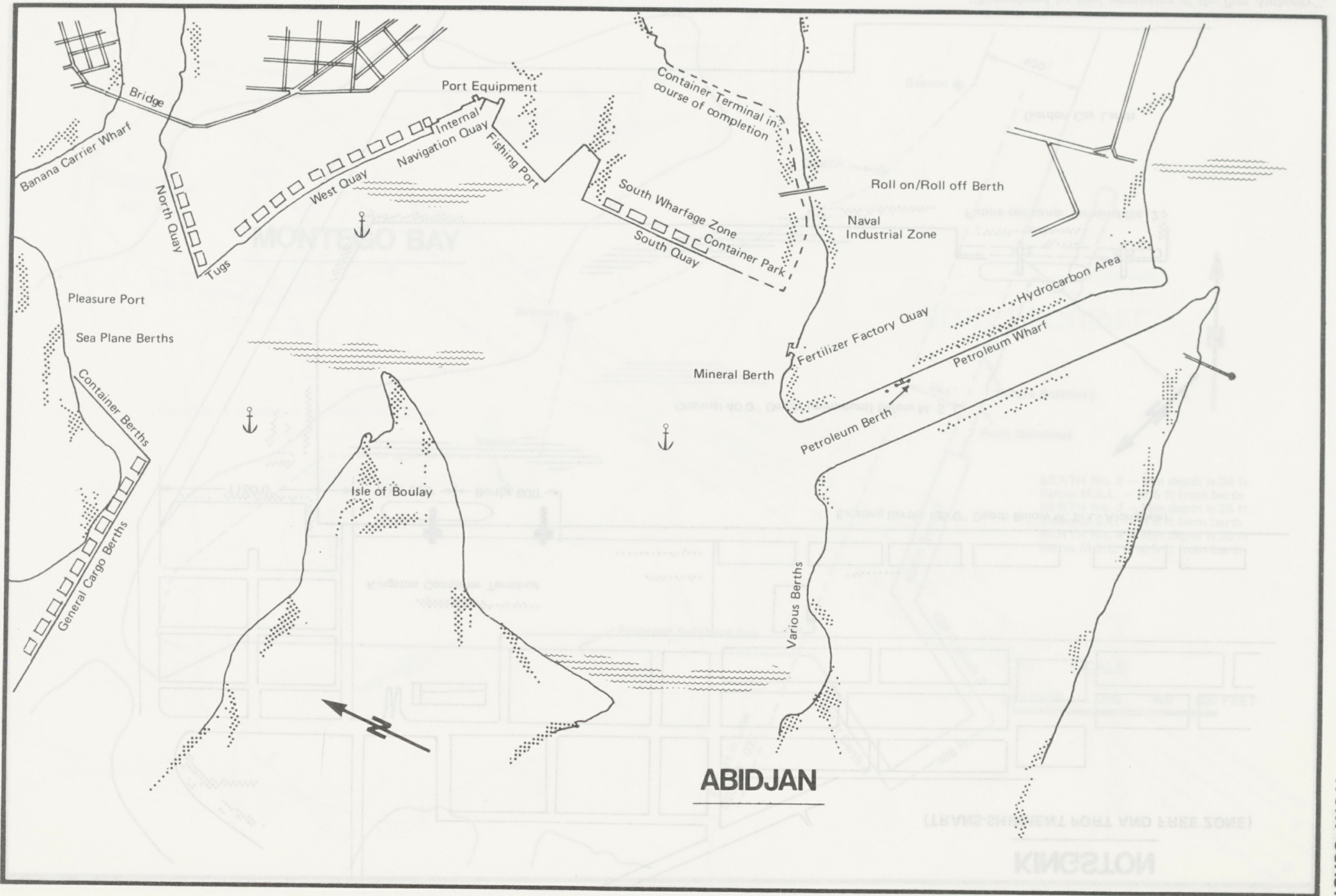


# TRIESTE 5

Envelope of unloading and bunkering arms at berths Nos. 1, 2 and 3.





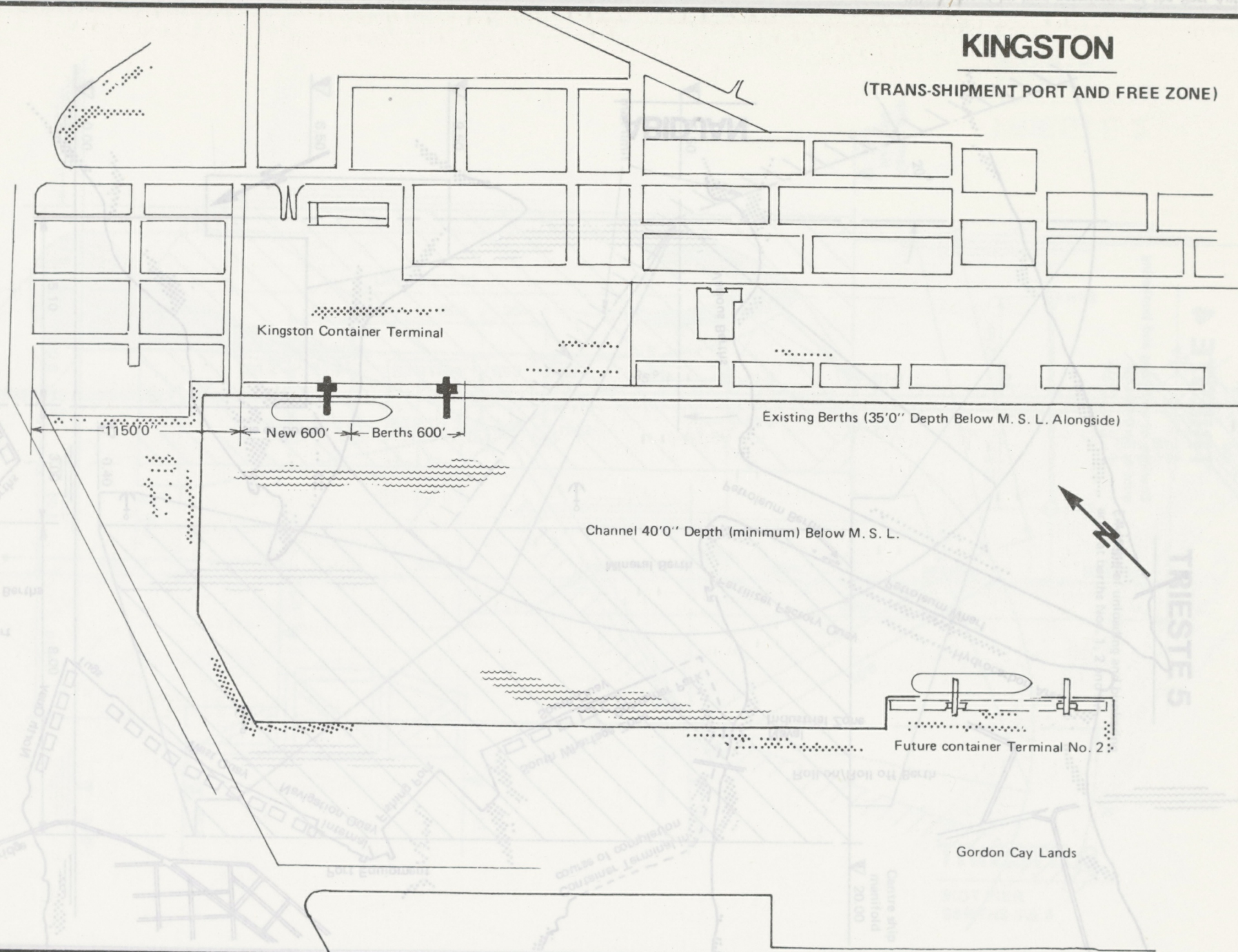


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# KINGSTON

(TRANS-SHIPMENT PORT AND FREE ZONE)





# MONTEGO BAY

Beacon

Beacon

Beacon

Beacon

Proposed Bulkhead line.

Ranges in Line  
020° 48' 02"

600 ft Berth 2

588 ft Berth 3

387 ft Berth 4

388 ft.

244'

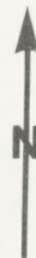
Rock Bulkhead

Future Bulkhead

BERTH No. 2 — Min depth is 34 ft  
Below M.S.L. — at 5 ft from berth  
BERTH No. 3 — Min depth is 25 ft  
Below M.S.L. — at 5 ft from berth  
BERTH No. 4 — Min depth is 25 ft  
Below M.S.L. — at 5 ft from berth

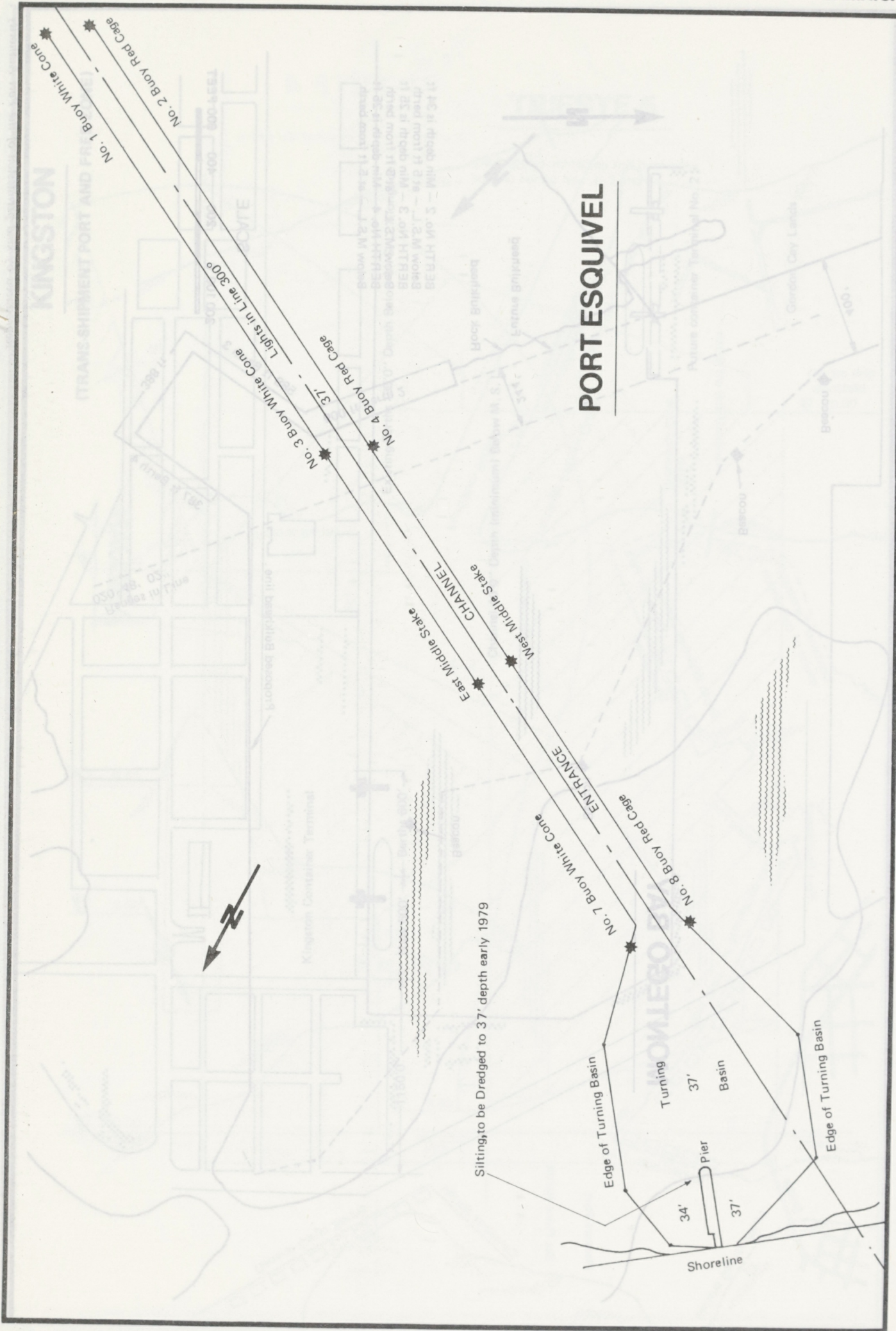
SCALE

200 100 0 200 400 600 FEET

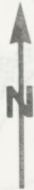




# PORT ESQUIVEL







**PORT RHOADES**

Leading Lights 193° 52'

Fl. 3 sec

Fl. 5 sec

DISCOVERY BAY

One Bush Pt.

Fort Pt.

Jetty

Bauxite  
Terminal  
Loading

F.R. 8 m

Customs House

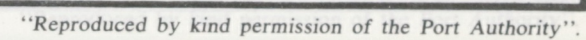
F. R. 12 m

Dome (Conspic)

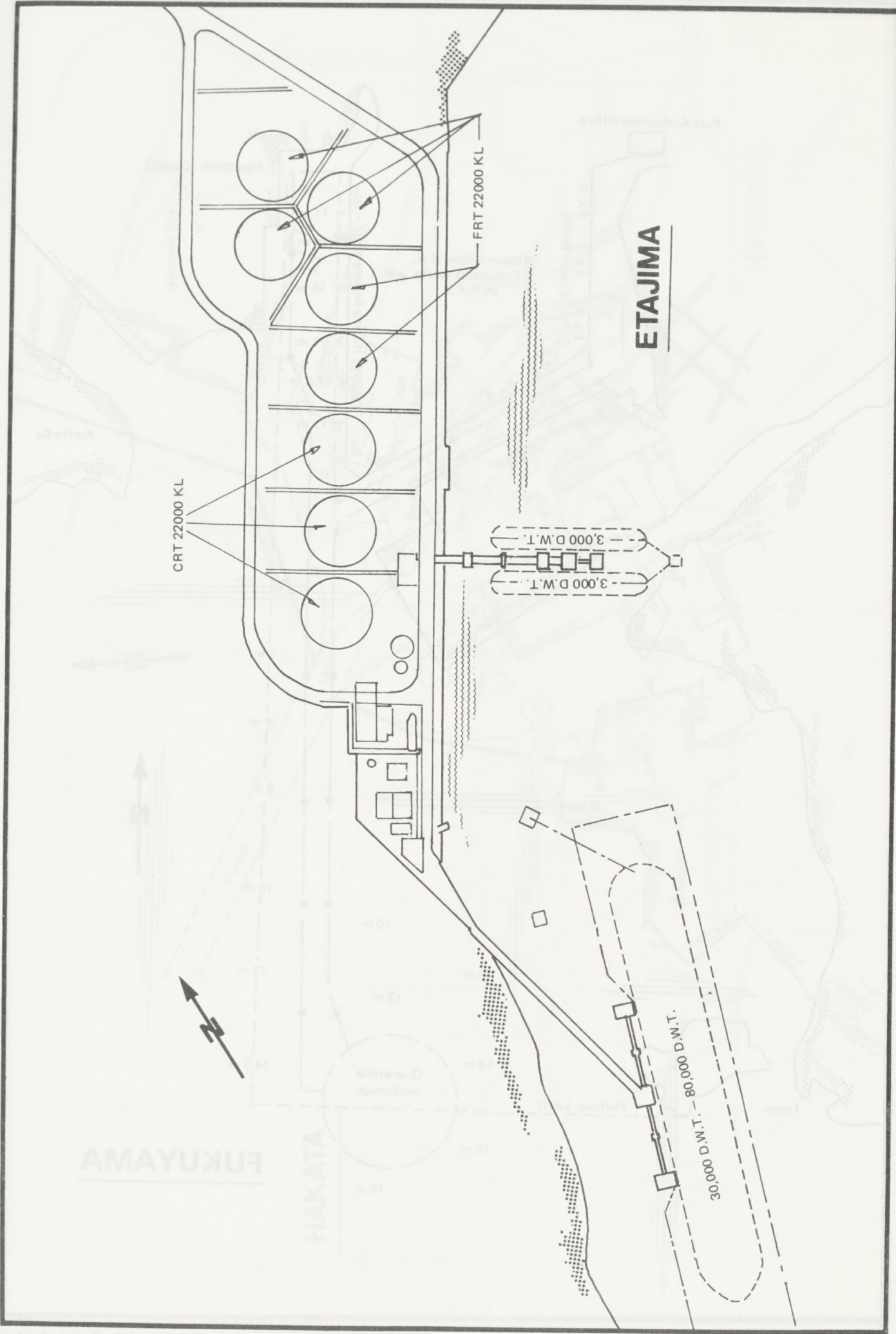
Beverland Wharf

Knox Wharf



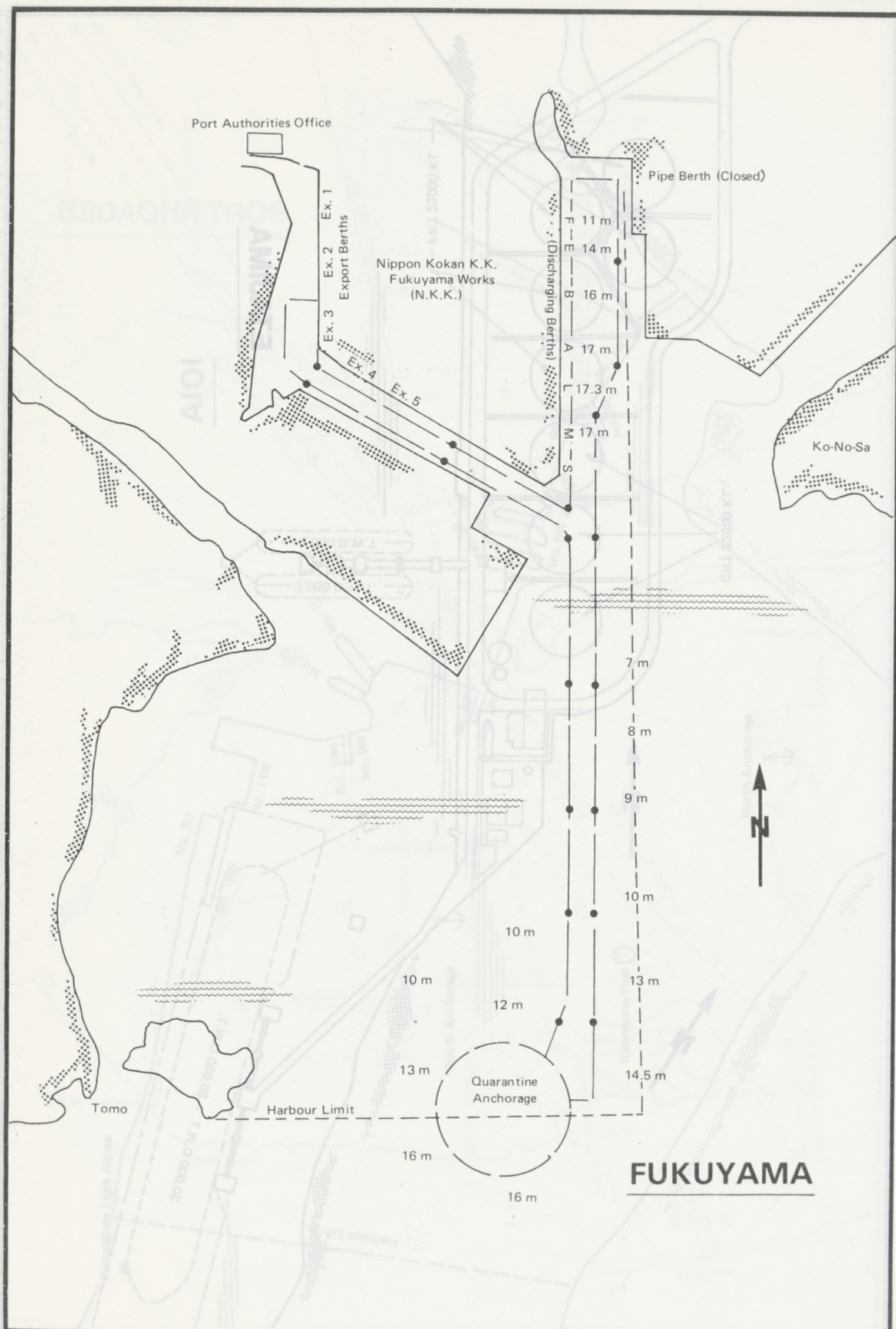






# ETAJIMA





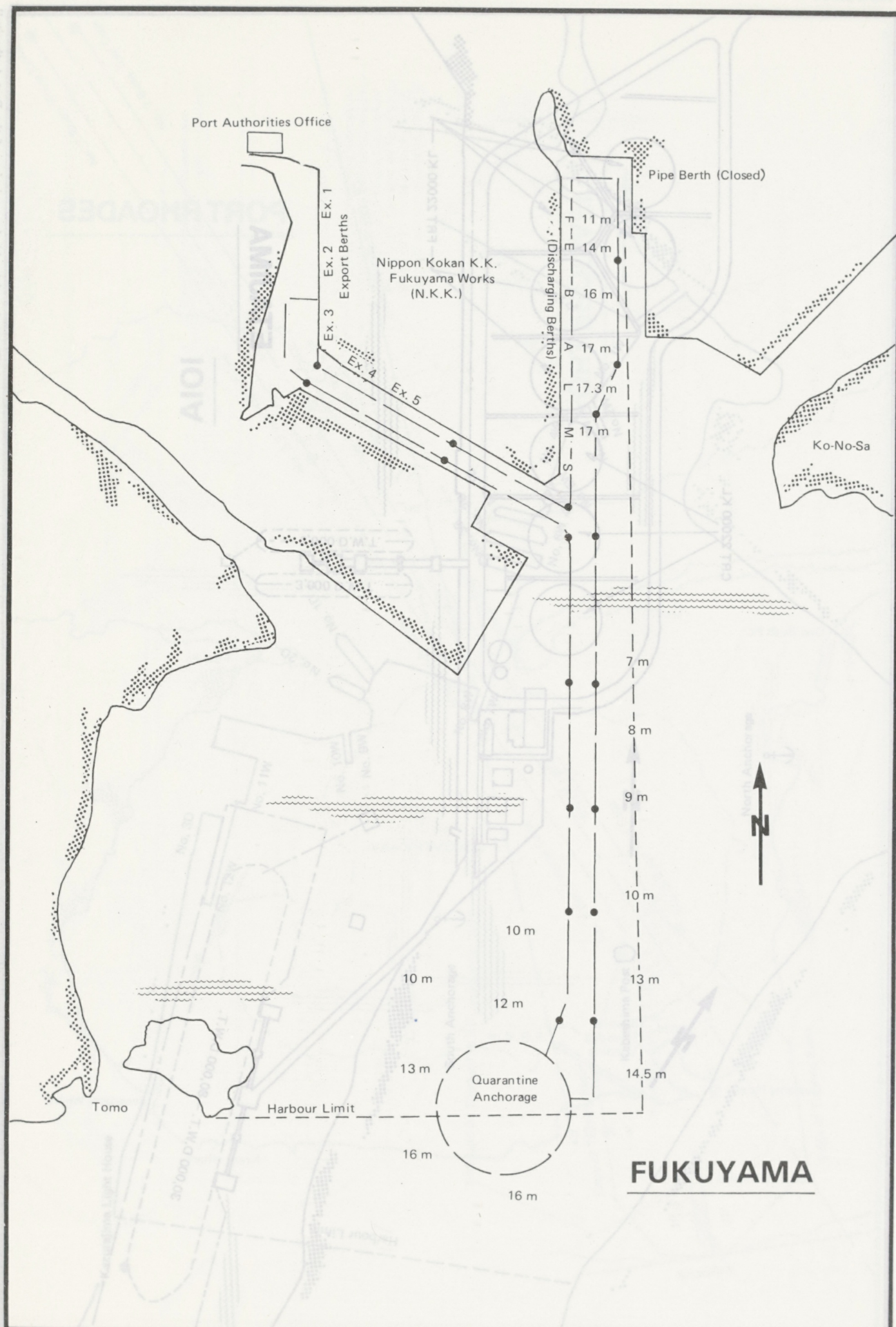




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# HAKATA

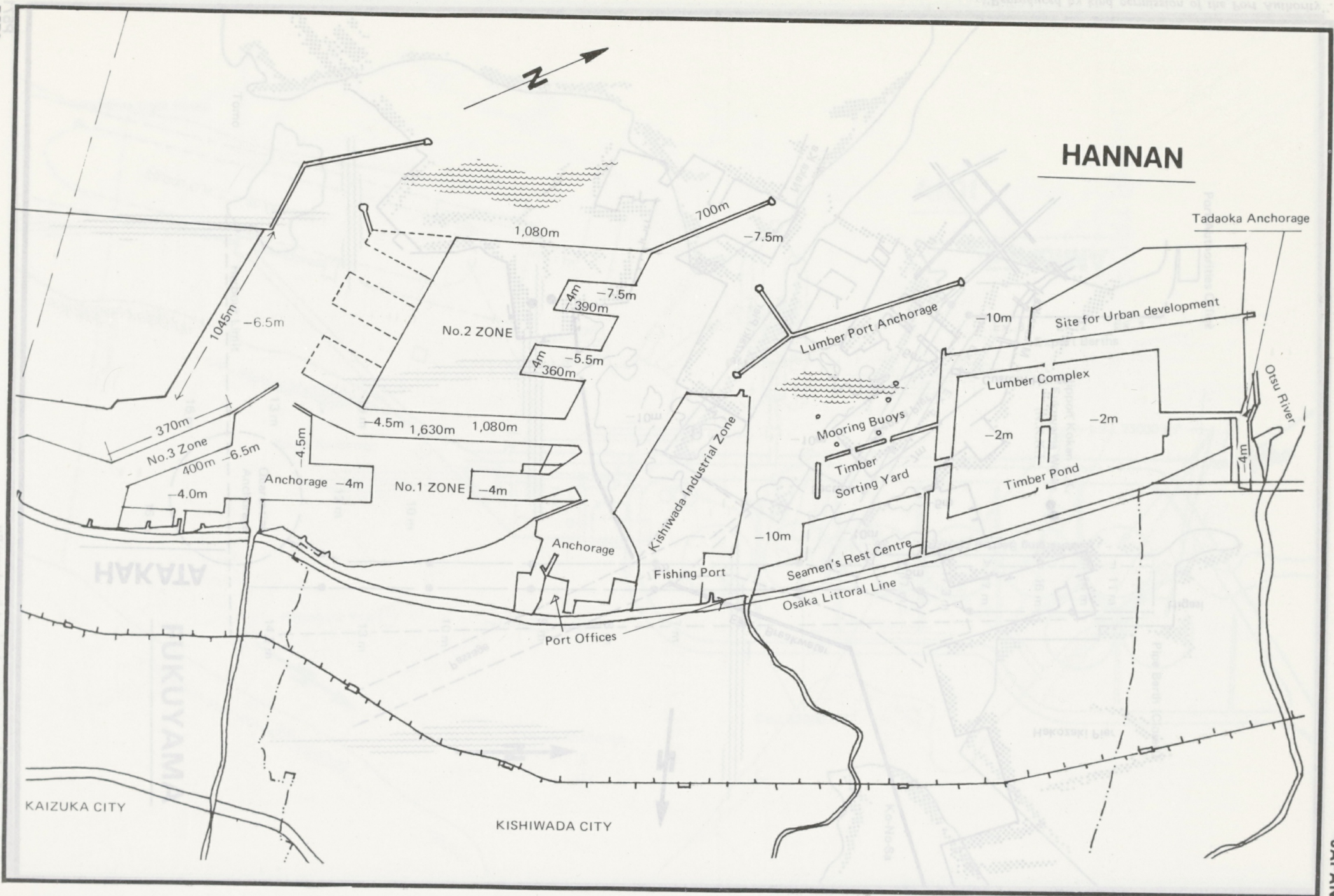




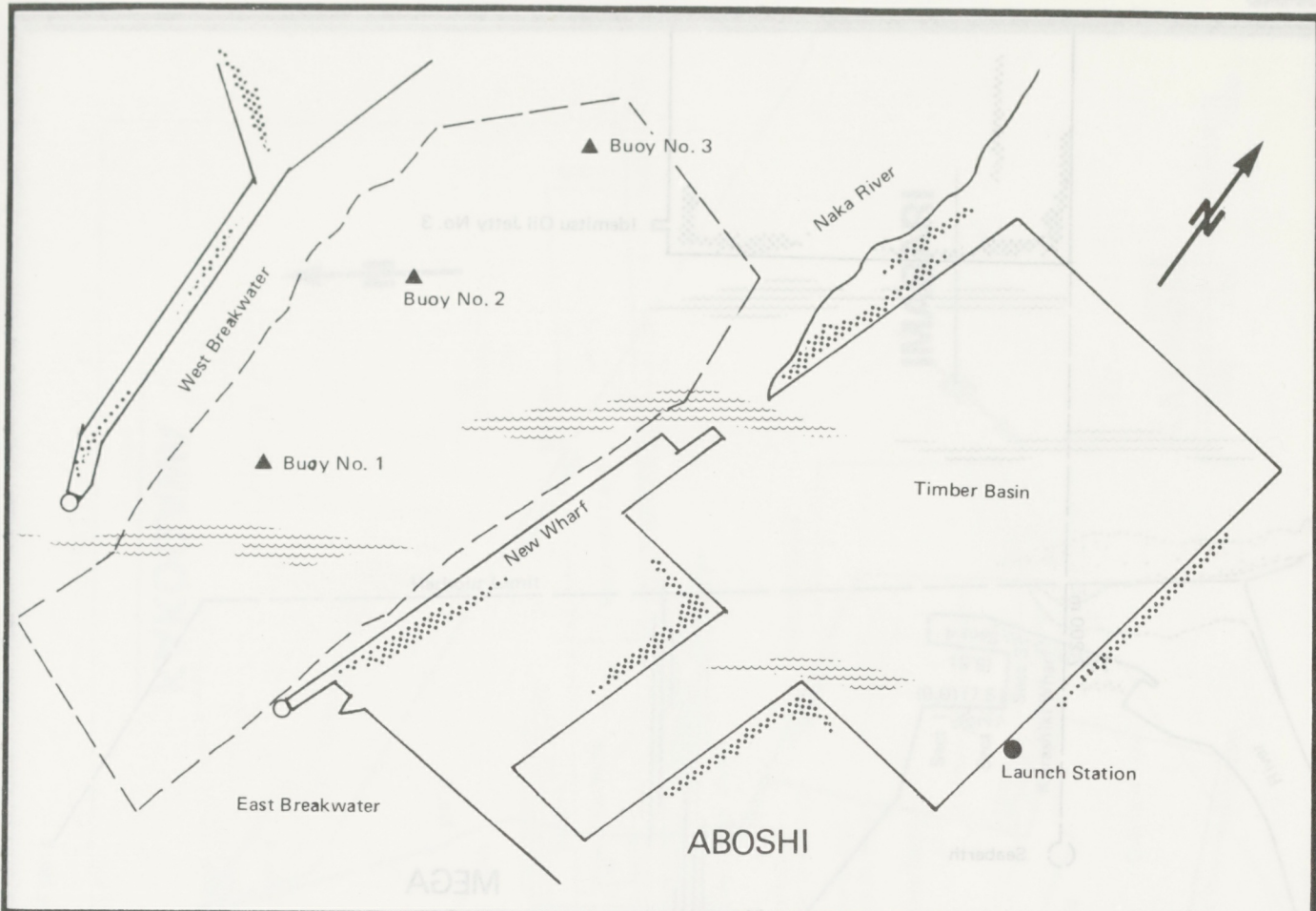




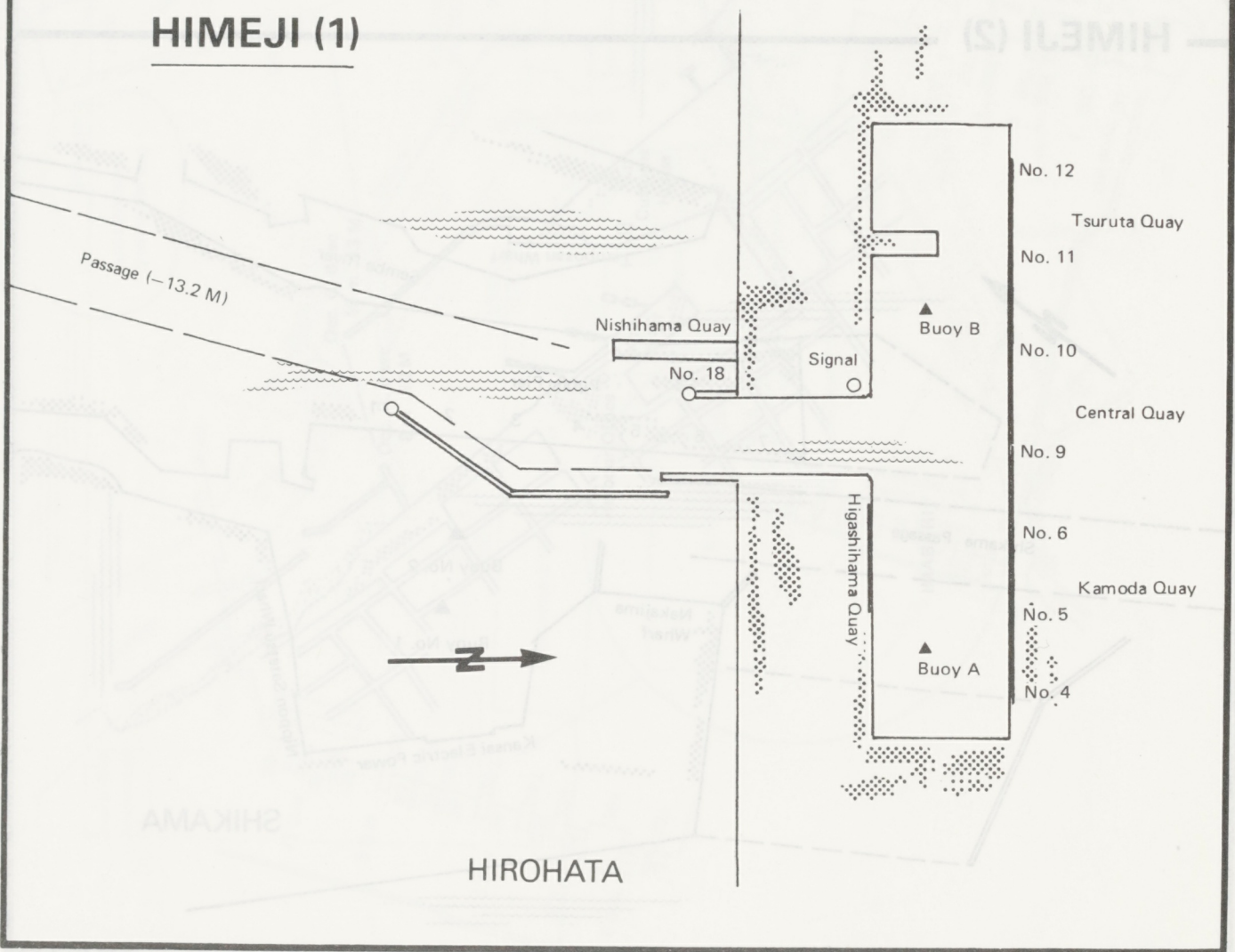




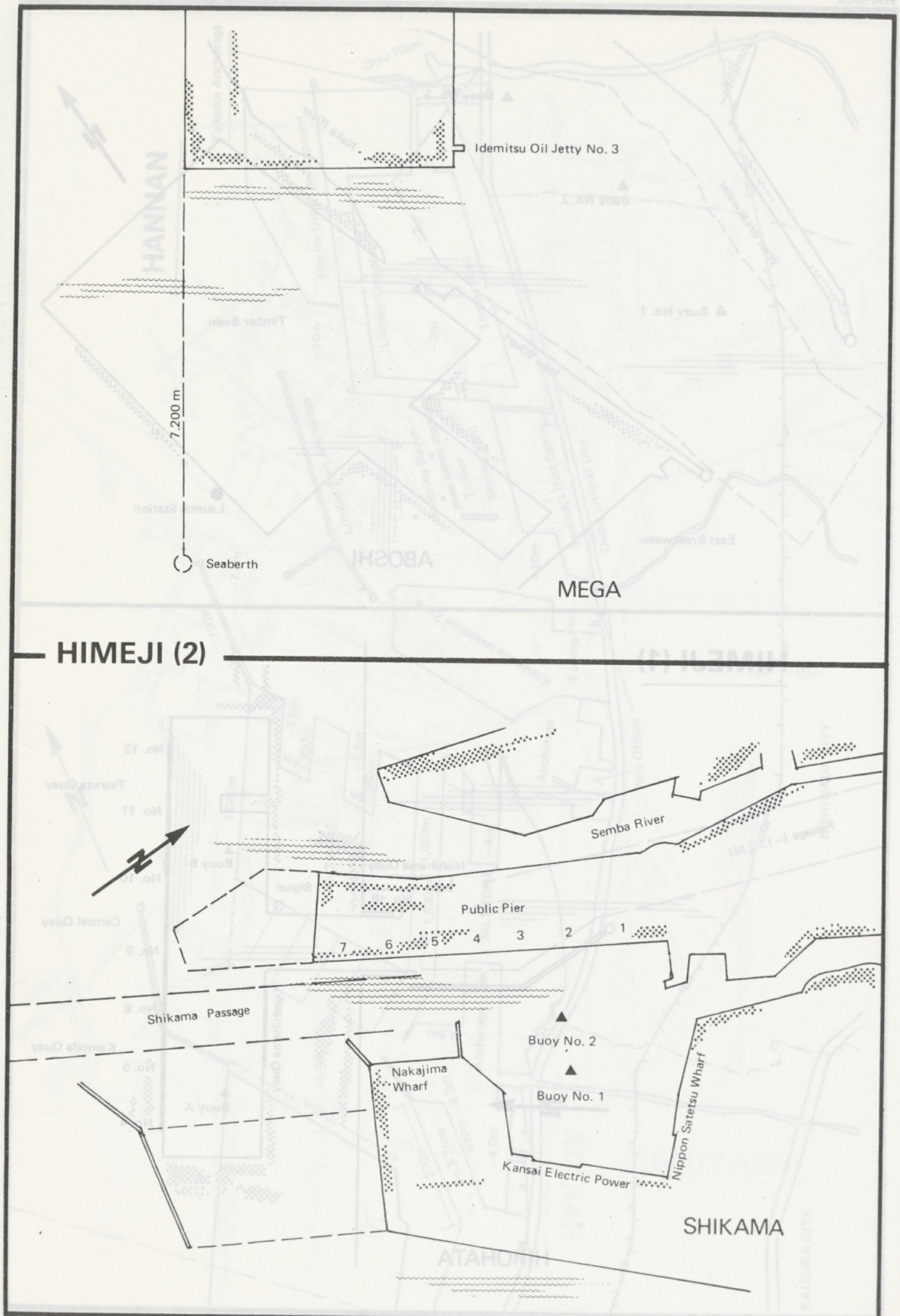




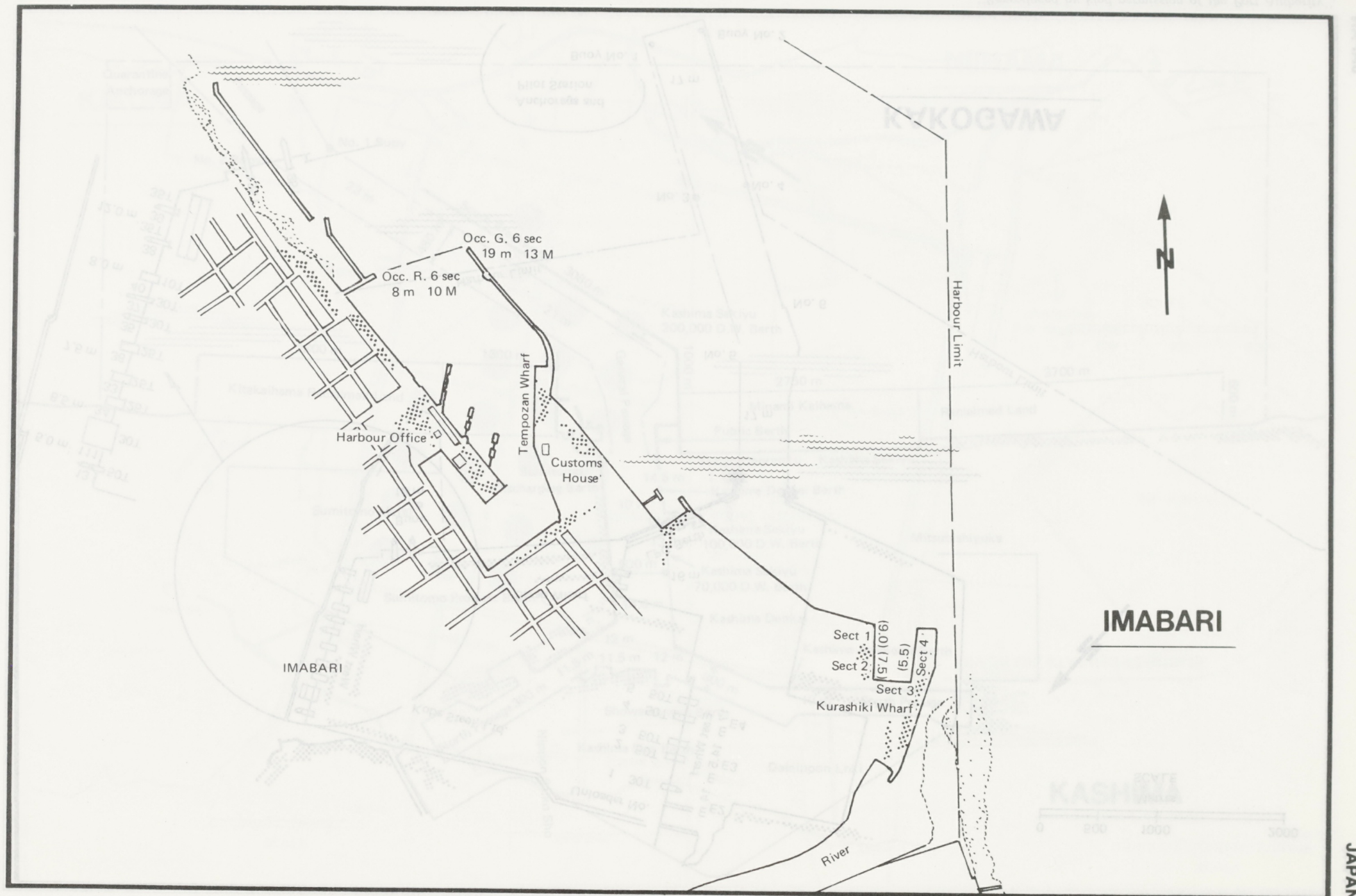
# HIMEJI (1)





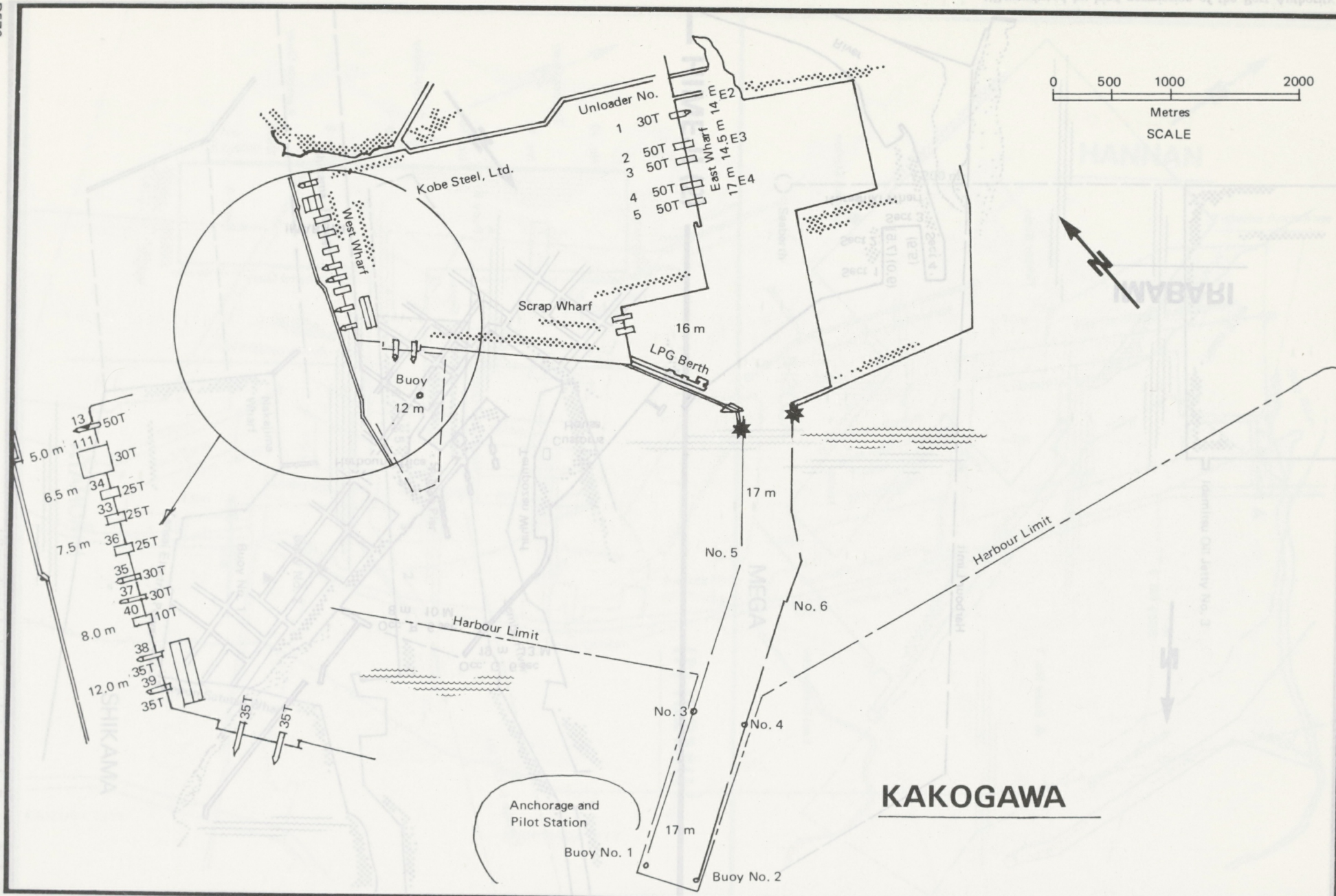




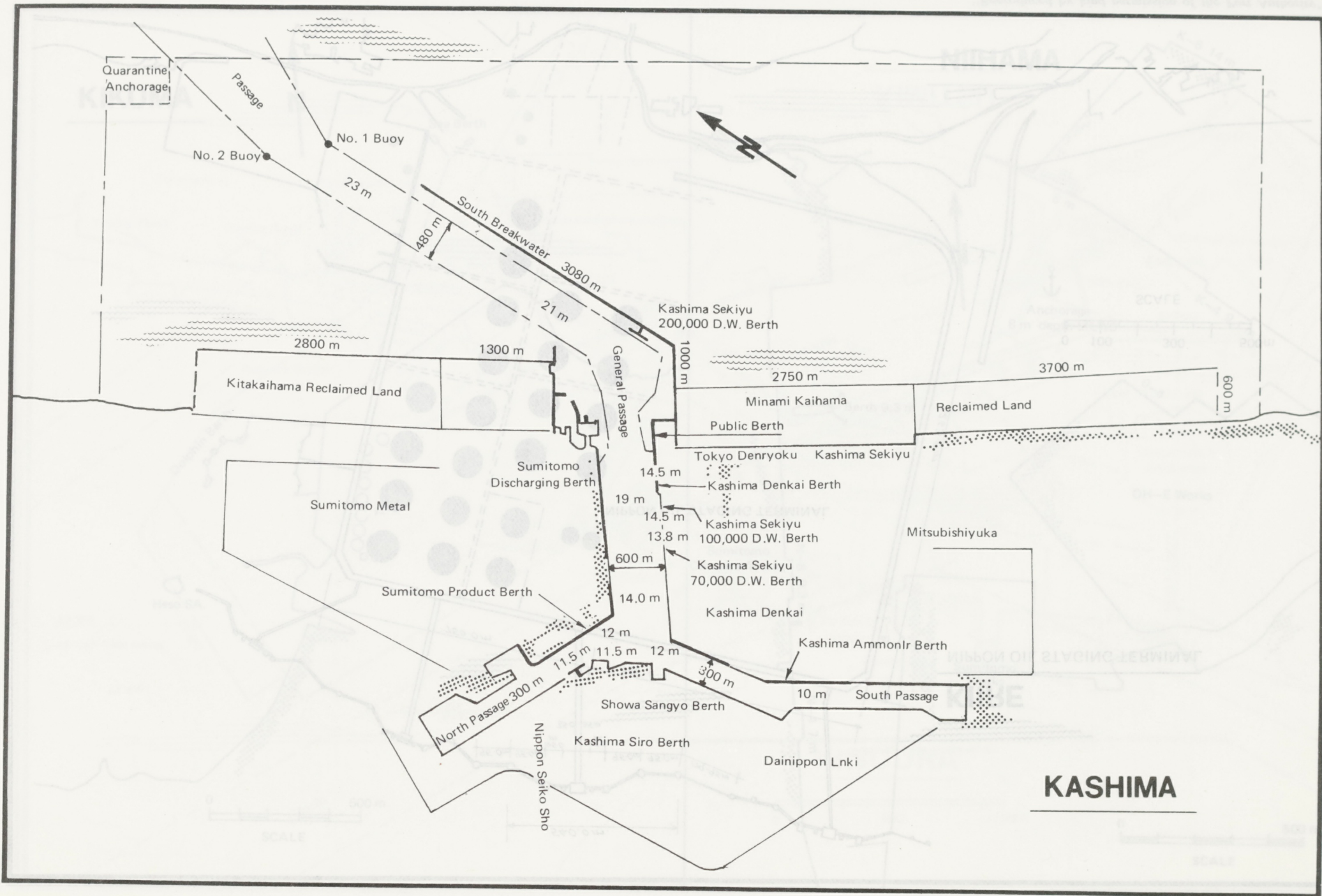


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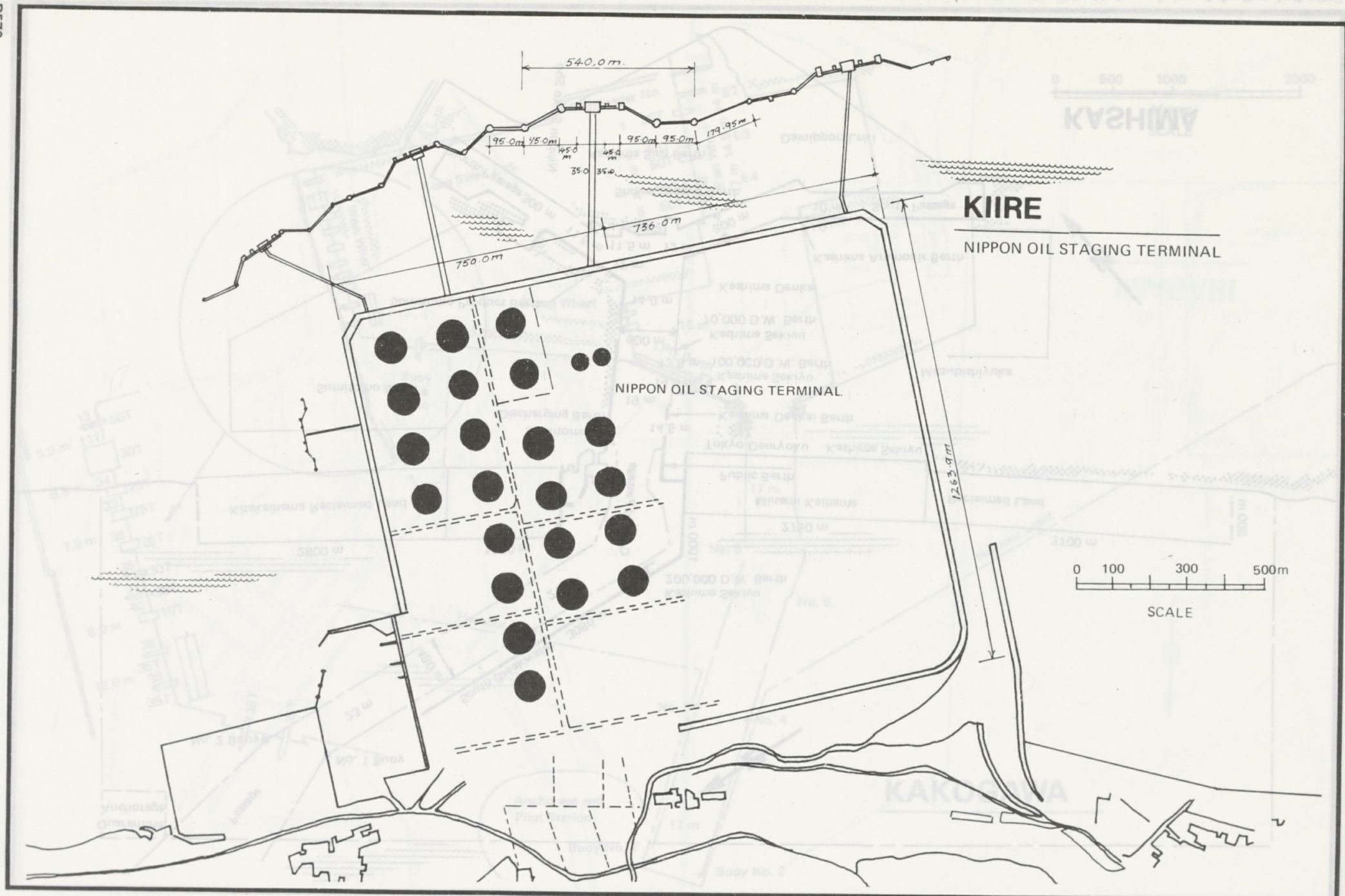




# KASHIMA

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# KIKUMA

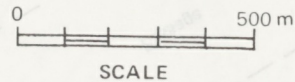


Sea Berth

Dolphin Berth

Tank

Heso SA.



# NIIHAMA



Anchorage  
8 m depth MLWS

Berth 9.3 m

Sumitomo  
Chemical Works

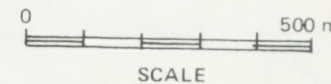
N-8 9.3 m

N-4 7 m

Sumitomo  
Works

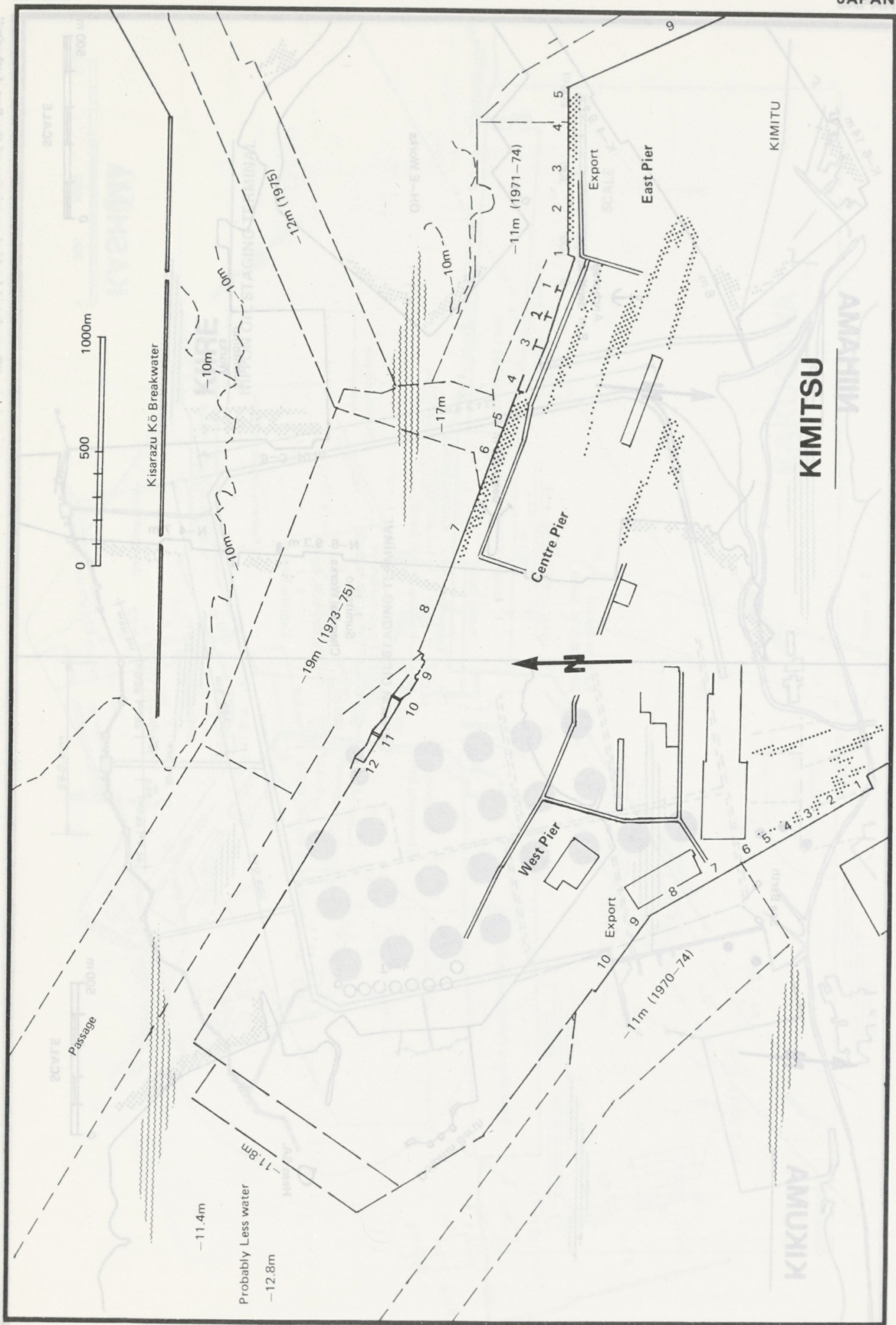
B-3 10 m

OH-E Works



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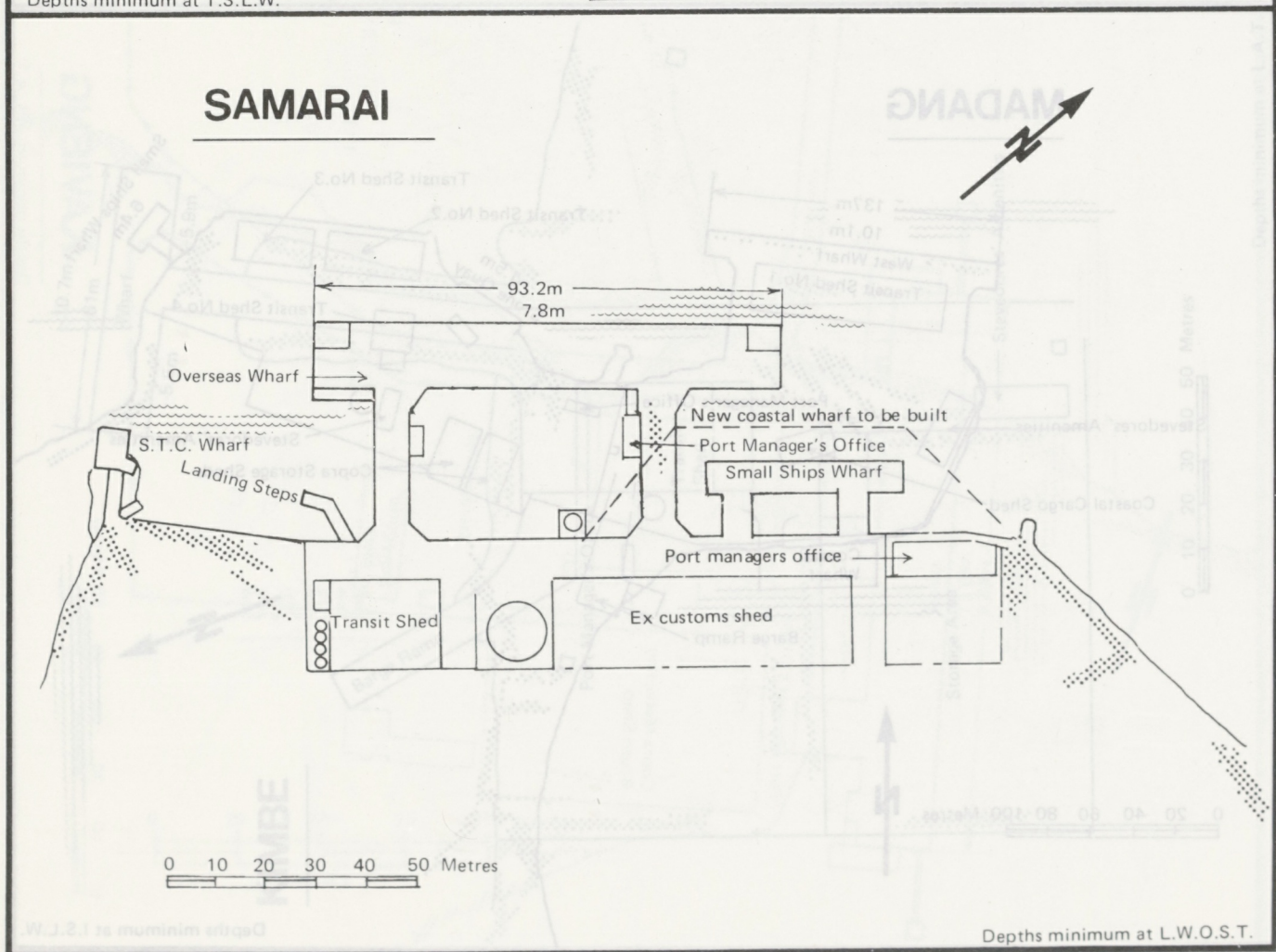
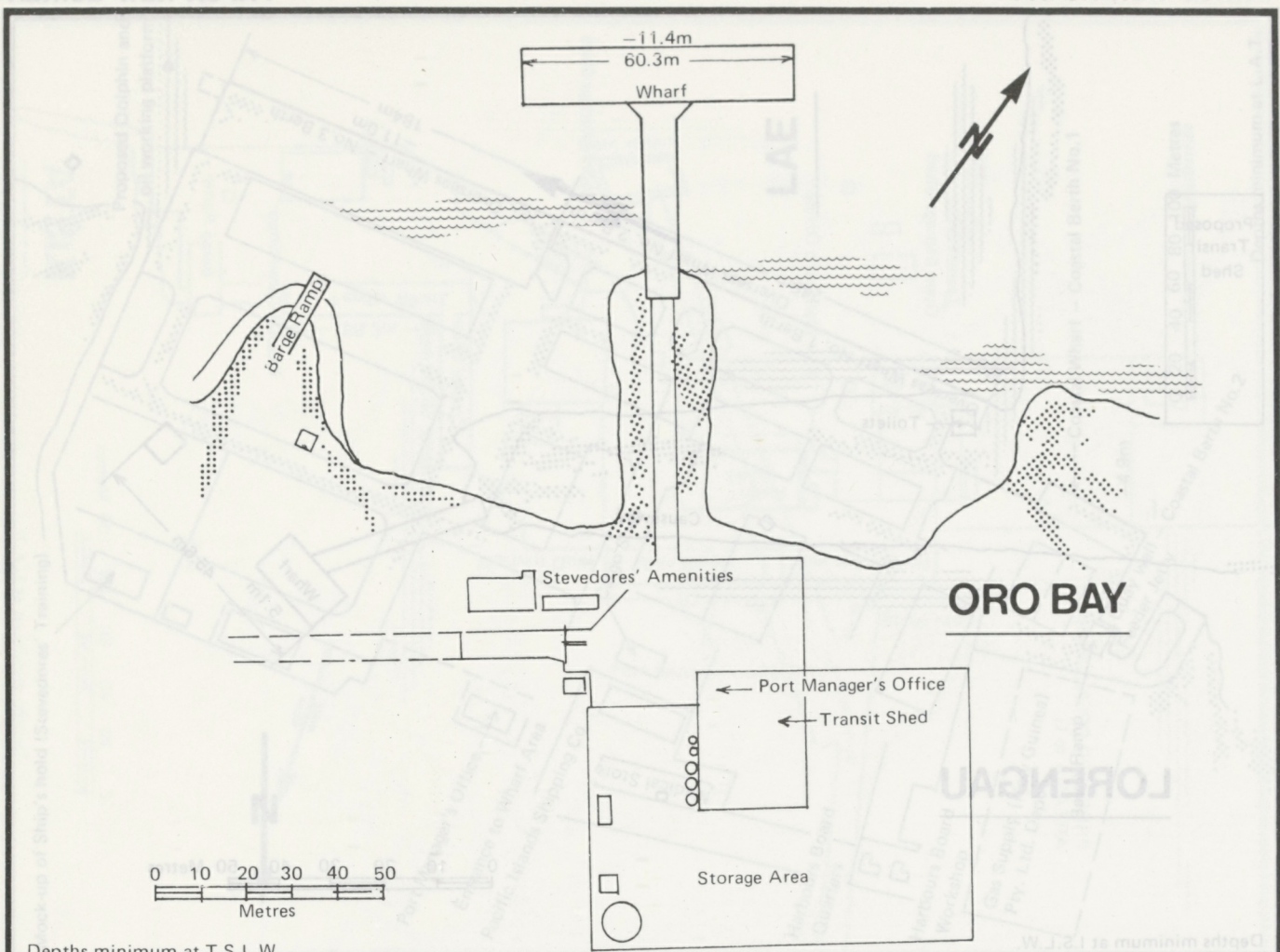




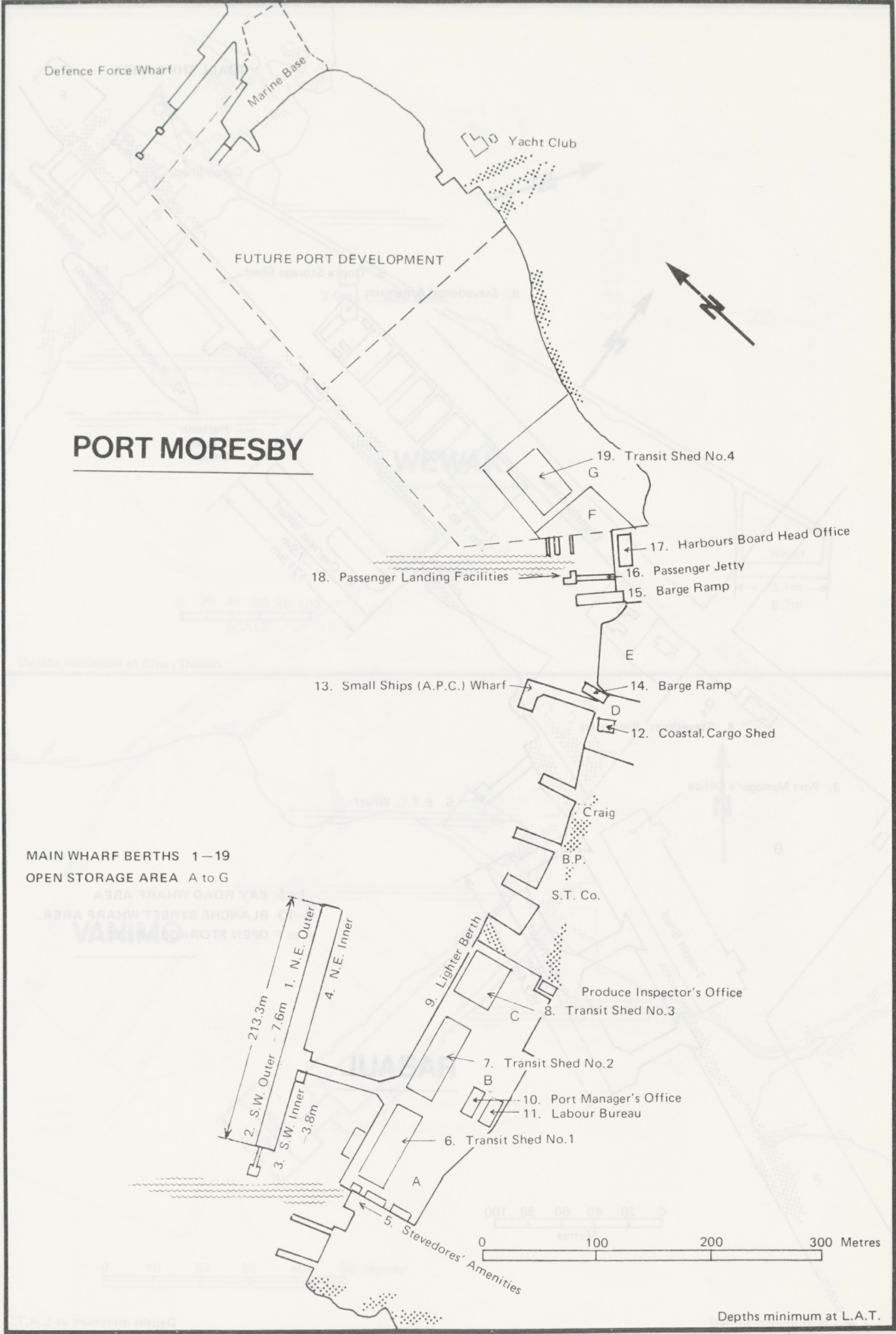
# KIMITSU

KIMITU



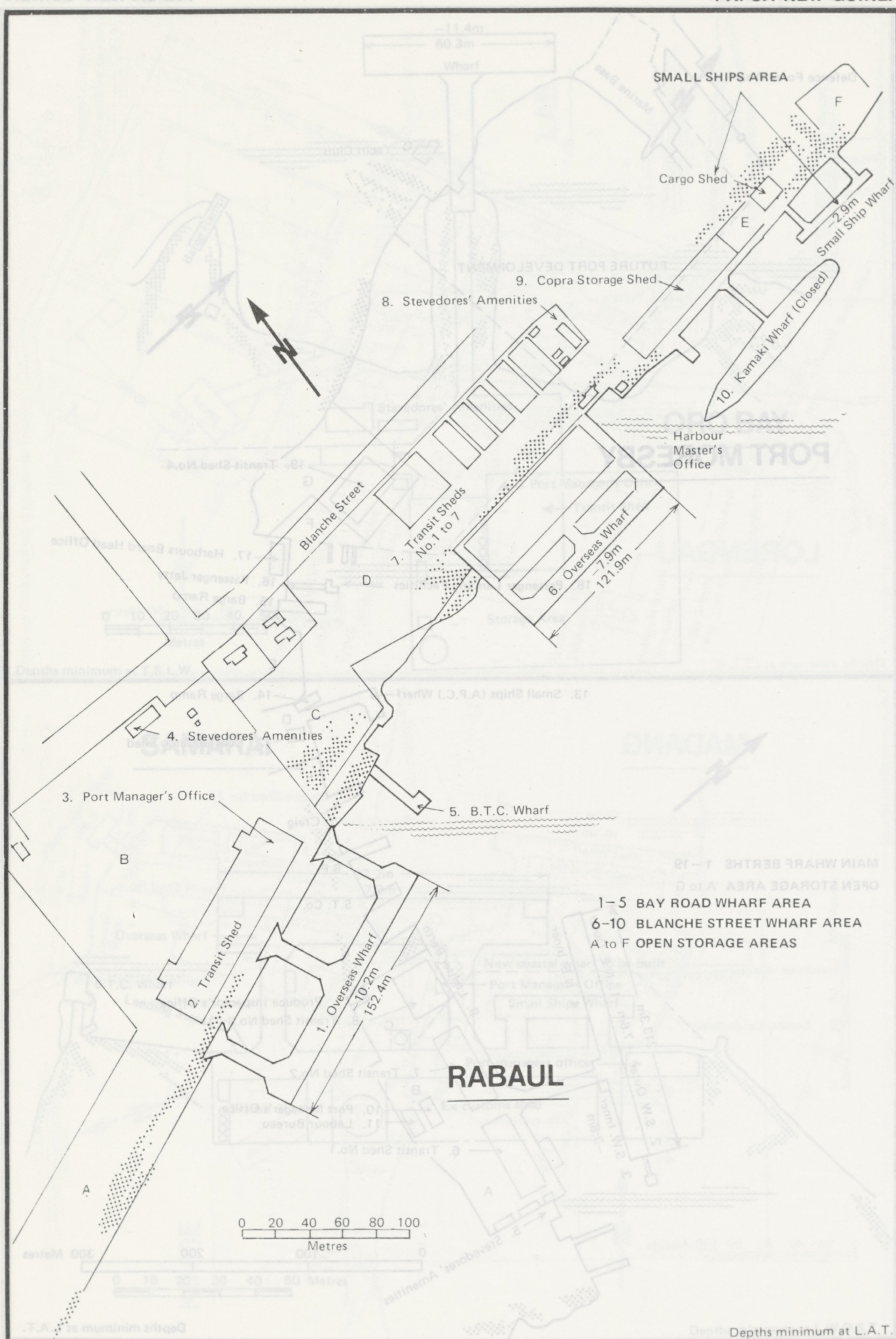






MAIN WHARF BERTHS 1-19  
OPEN STORAGE AREA A to G

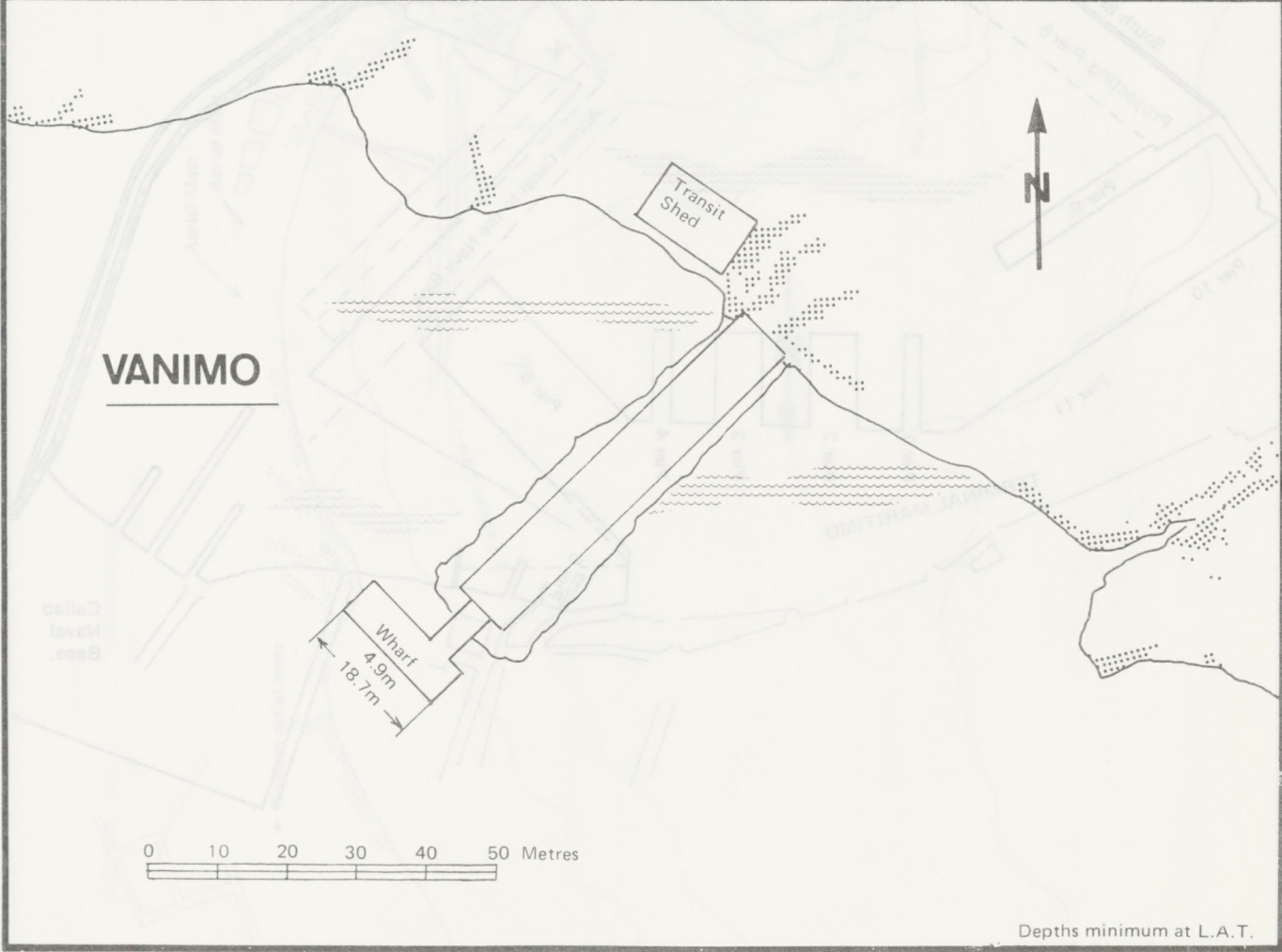






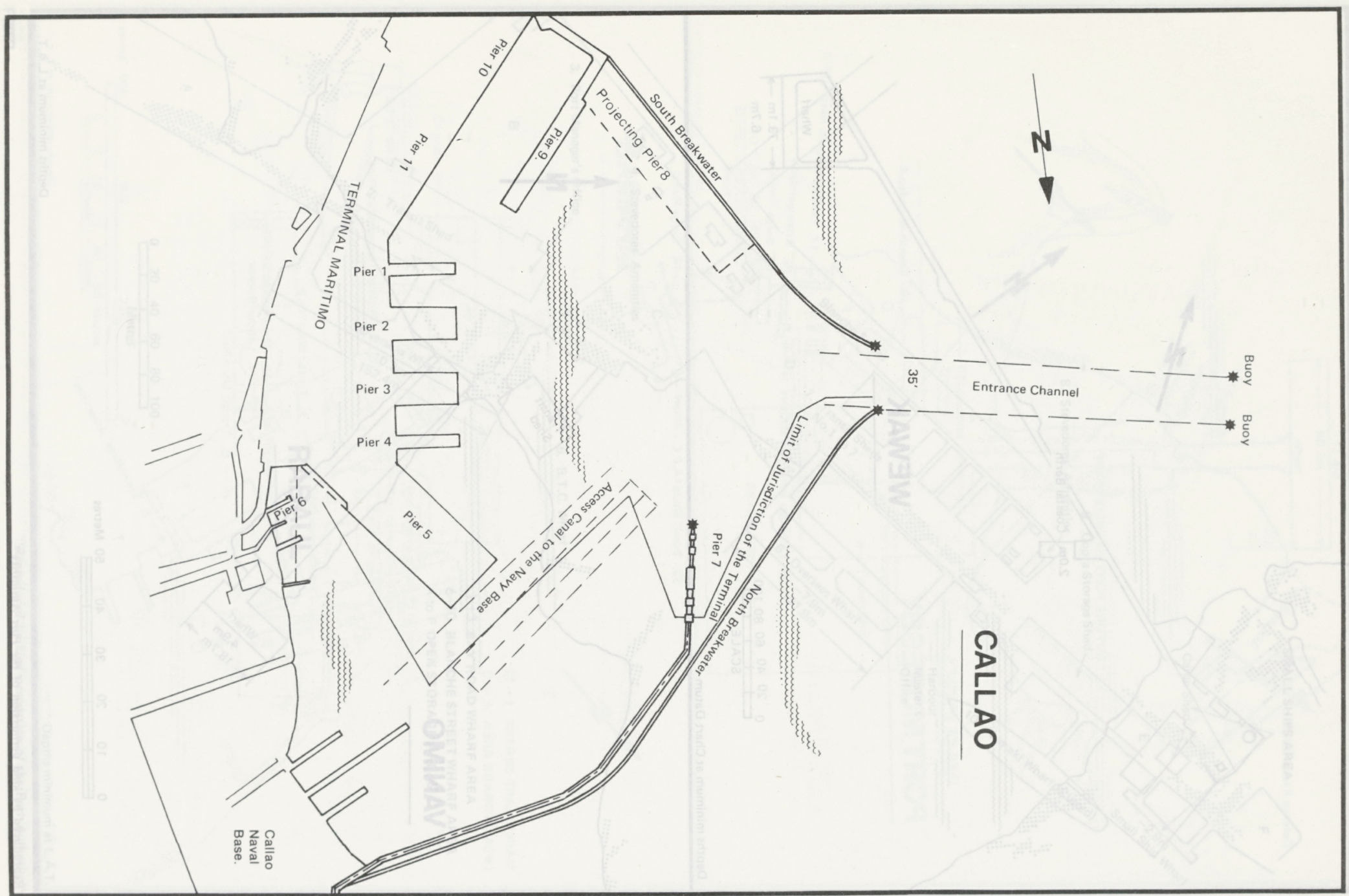


Depths minimum at Chart Datum

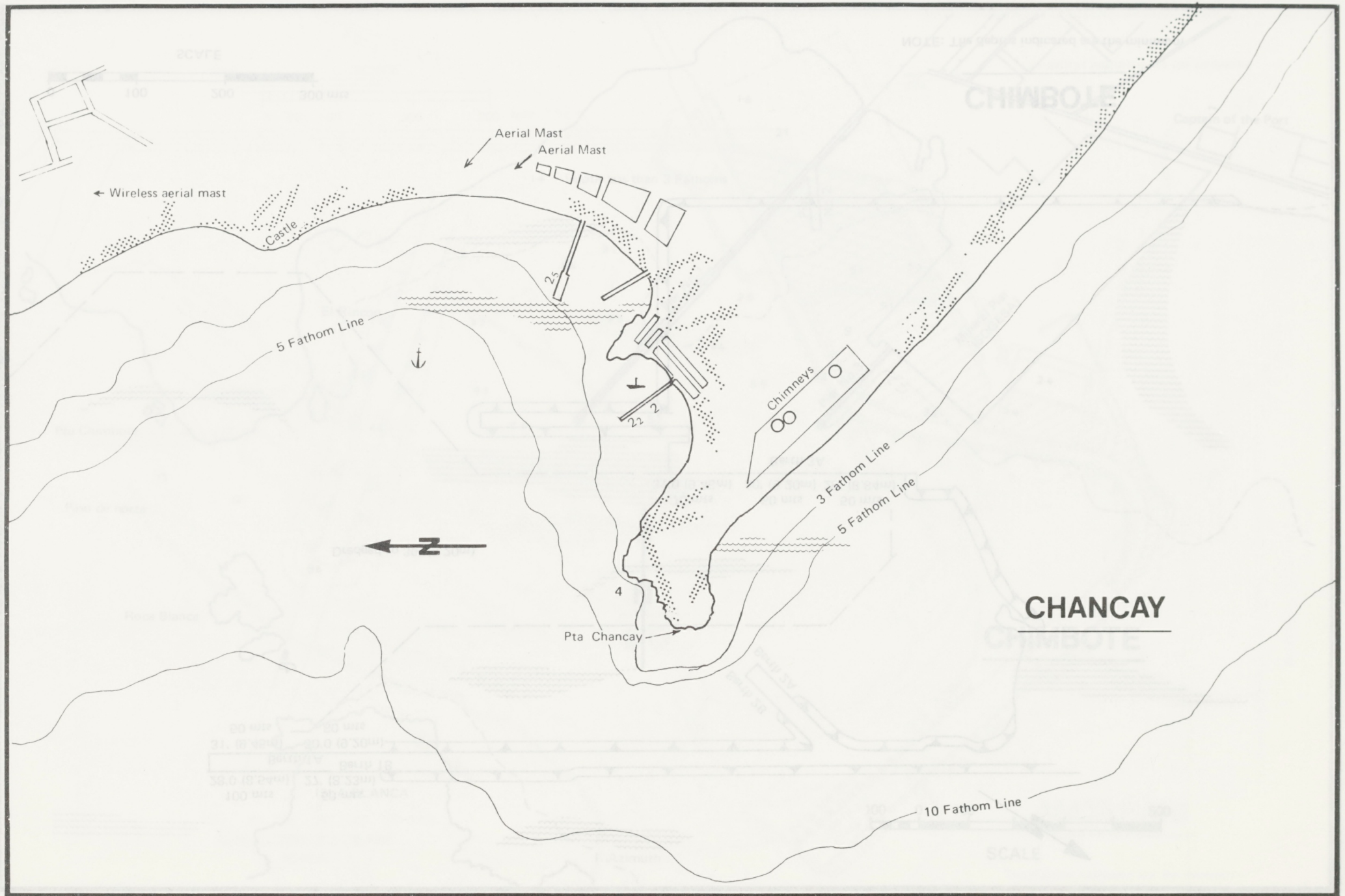


Depths minimum at L.A.T.



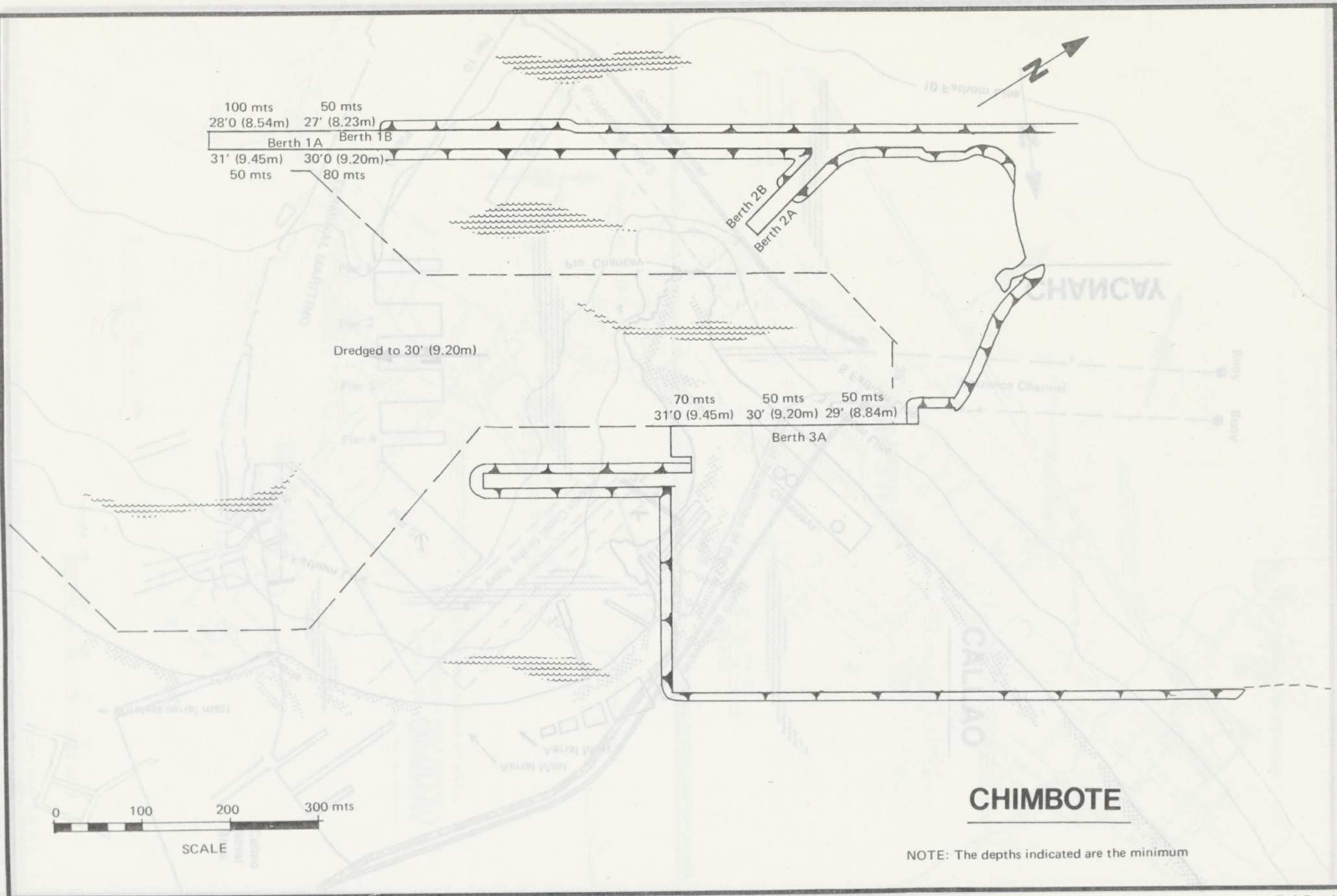




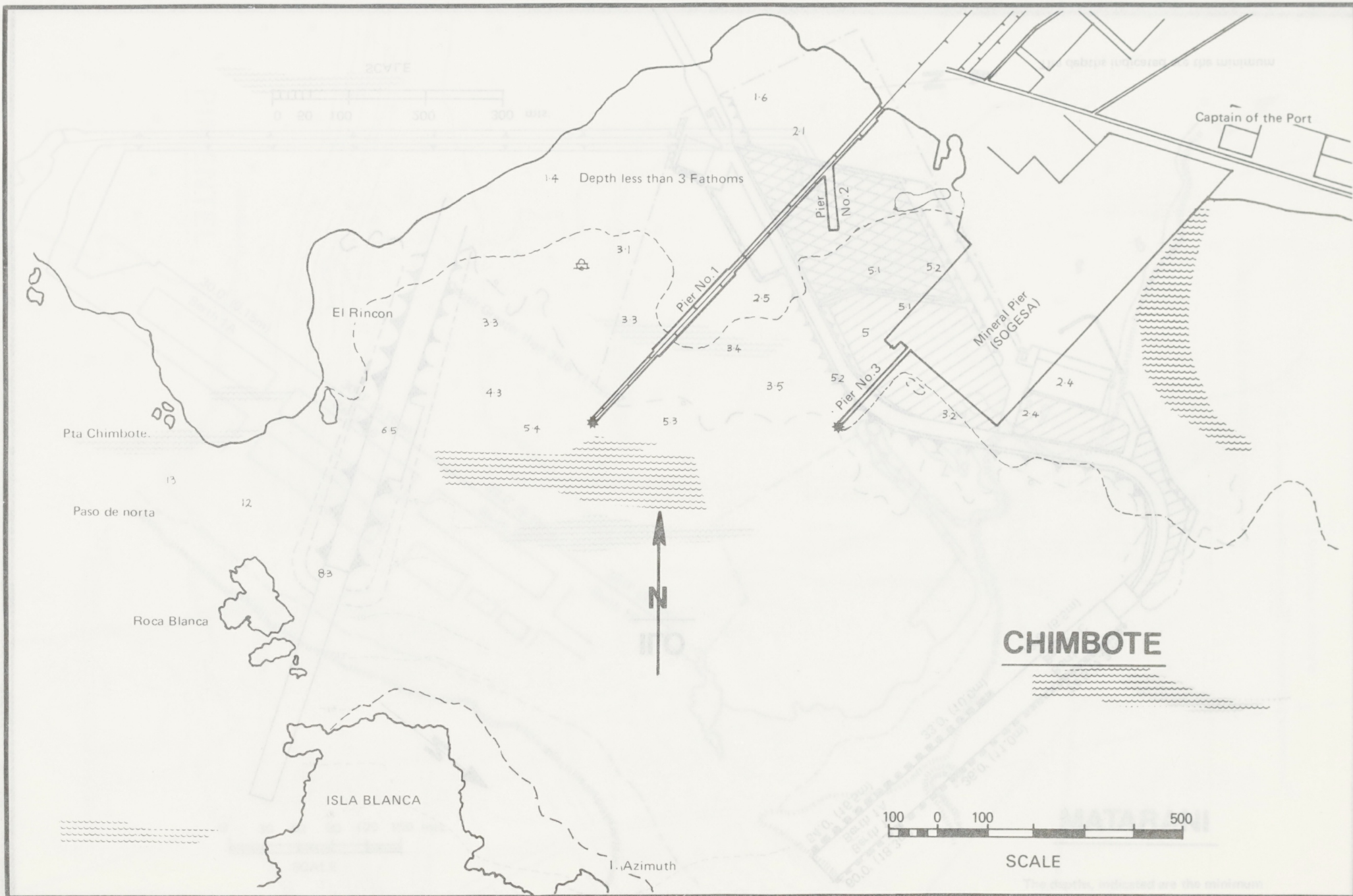


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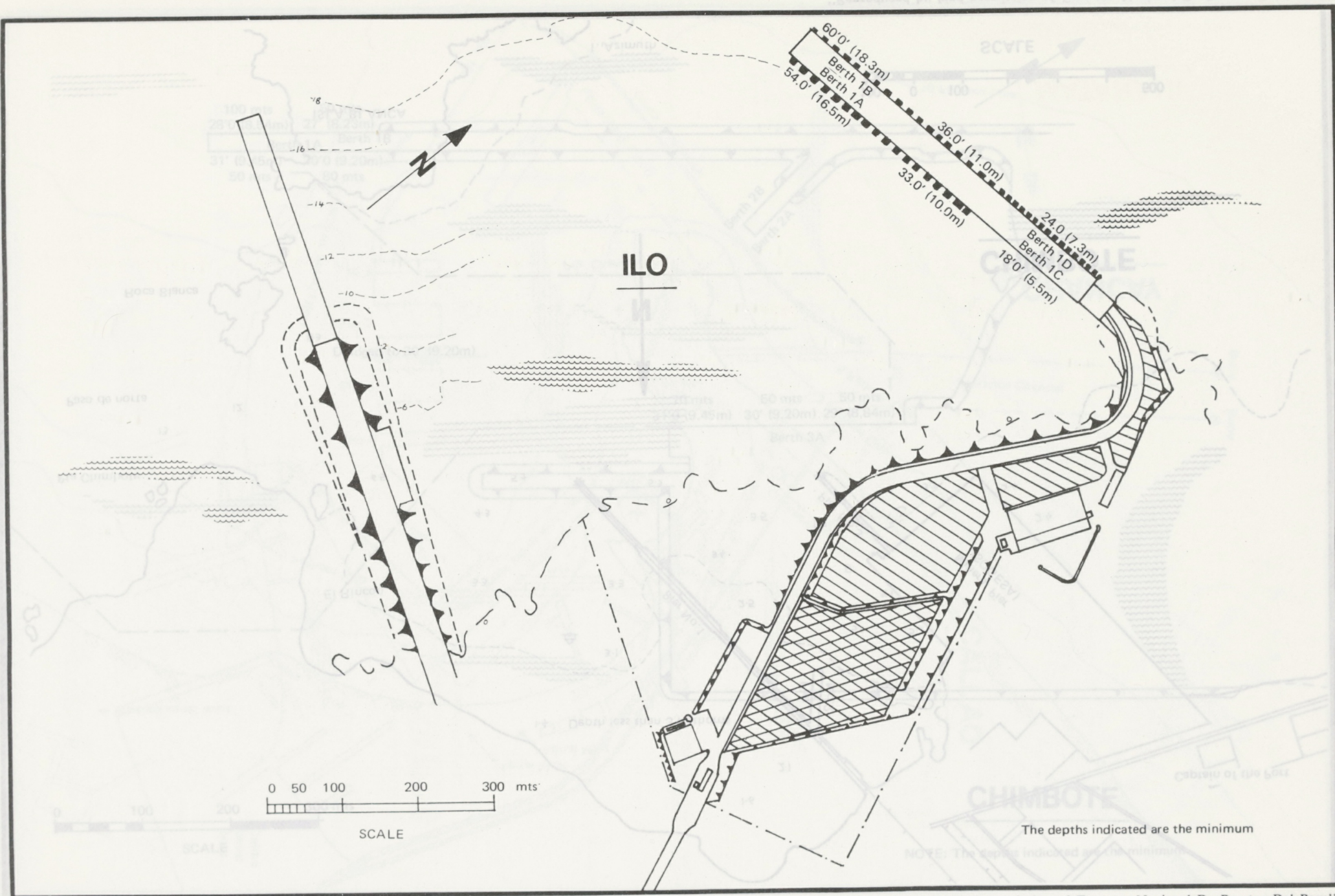






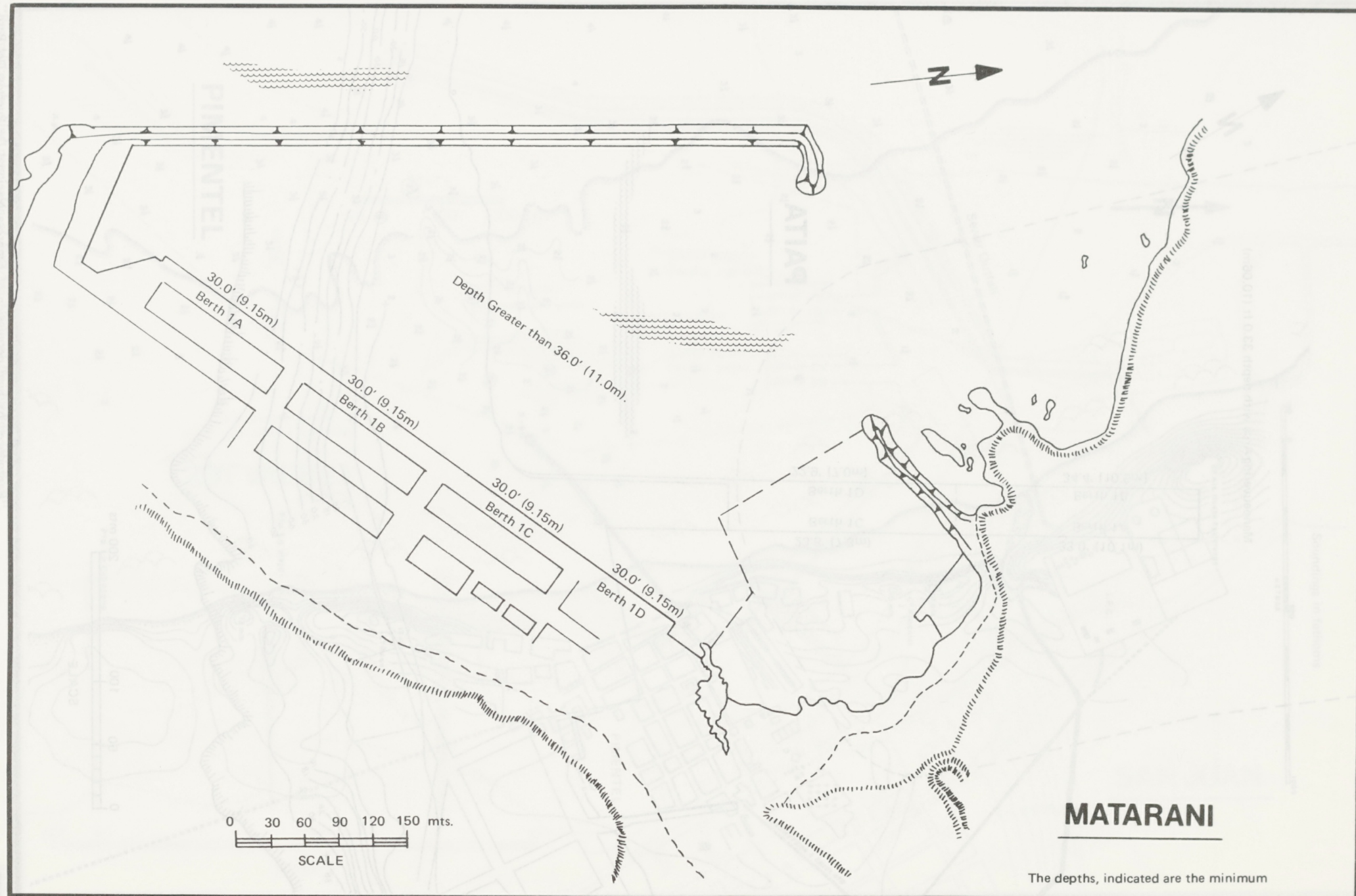
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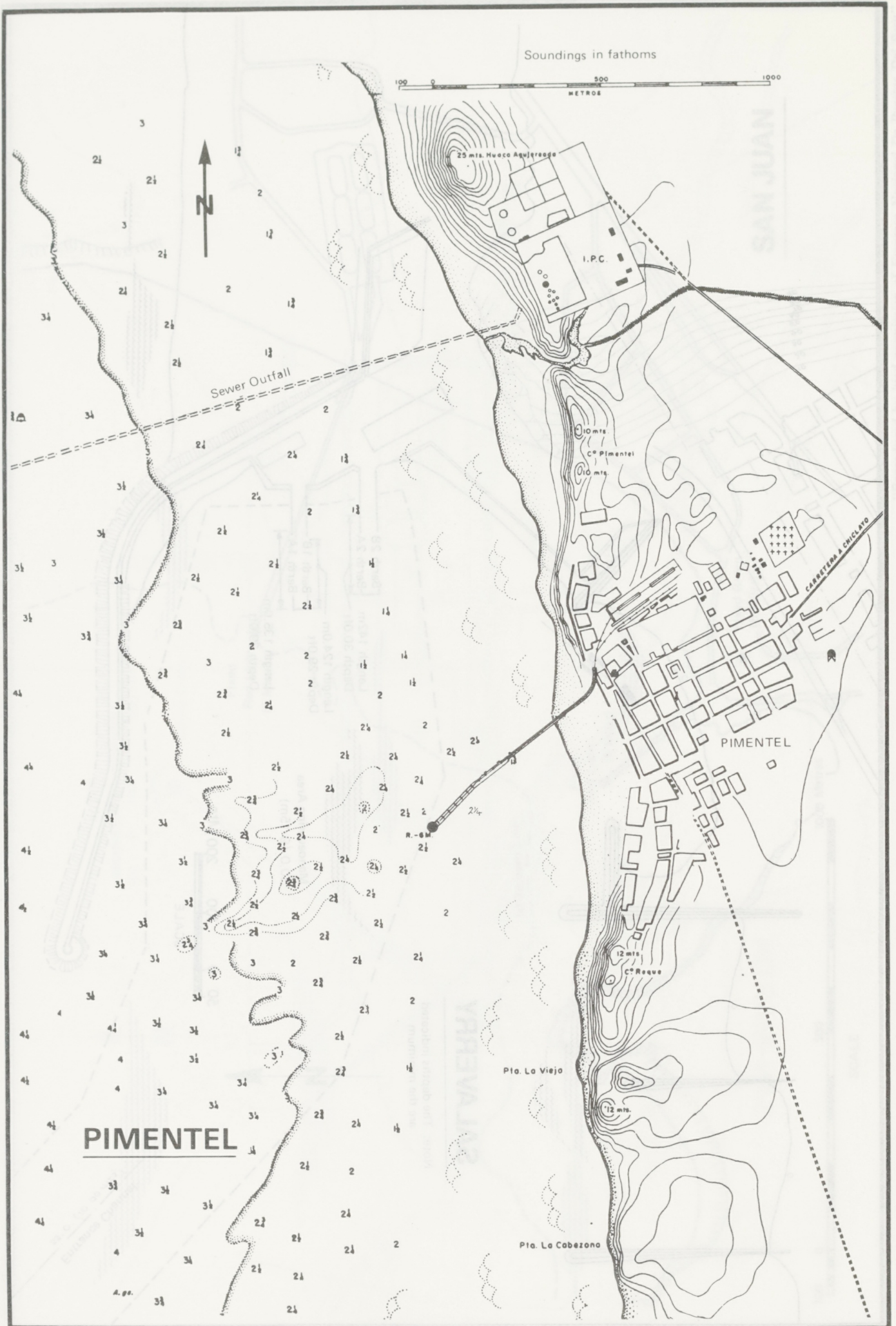
The depths, indicated are the minimum

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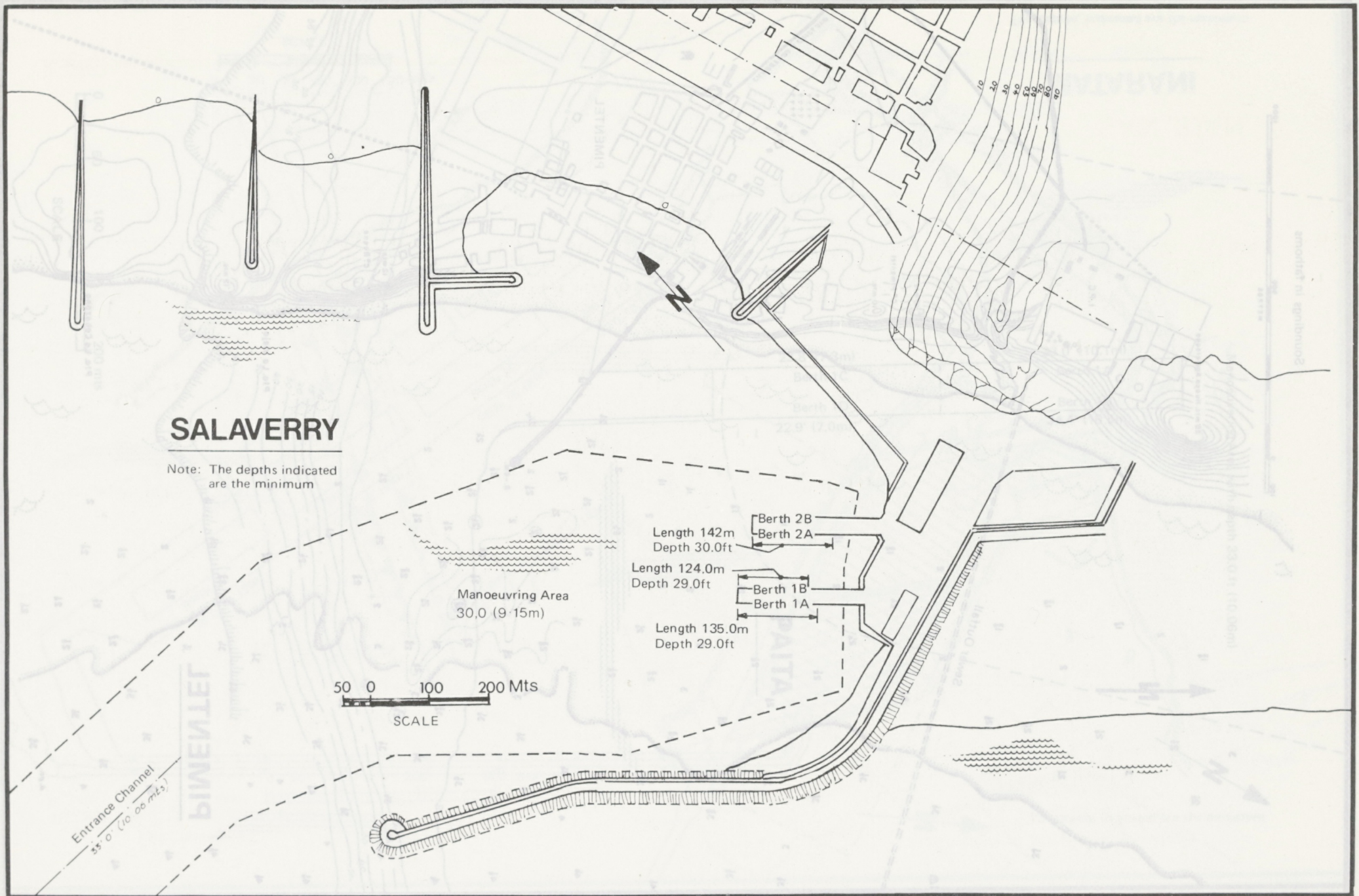




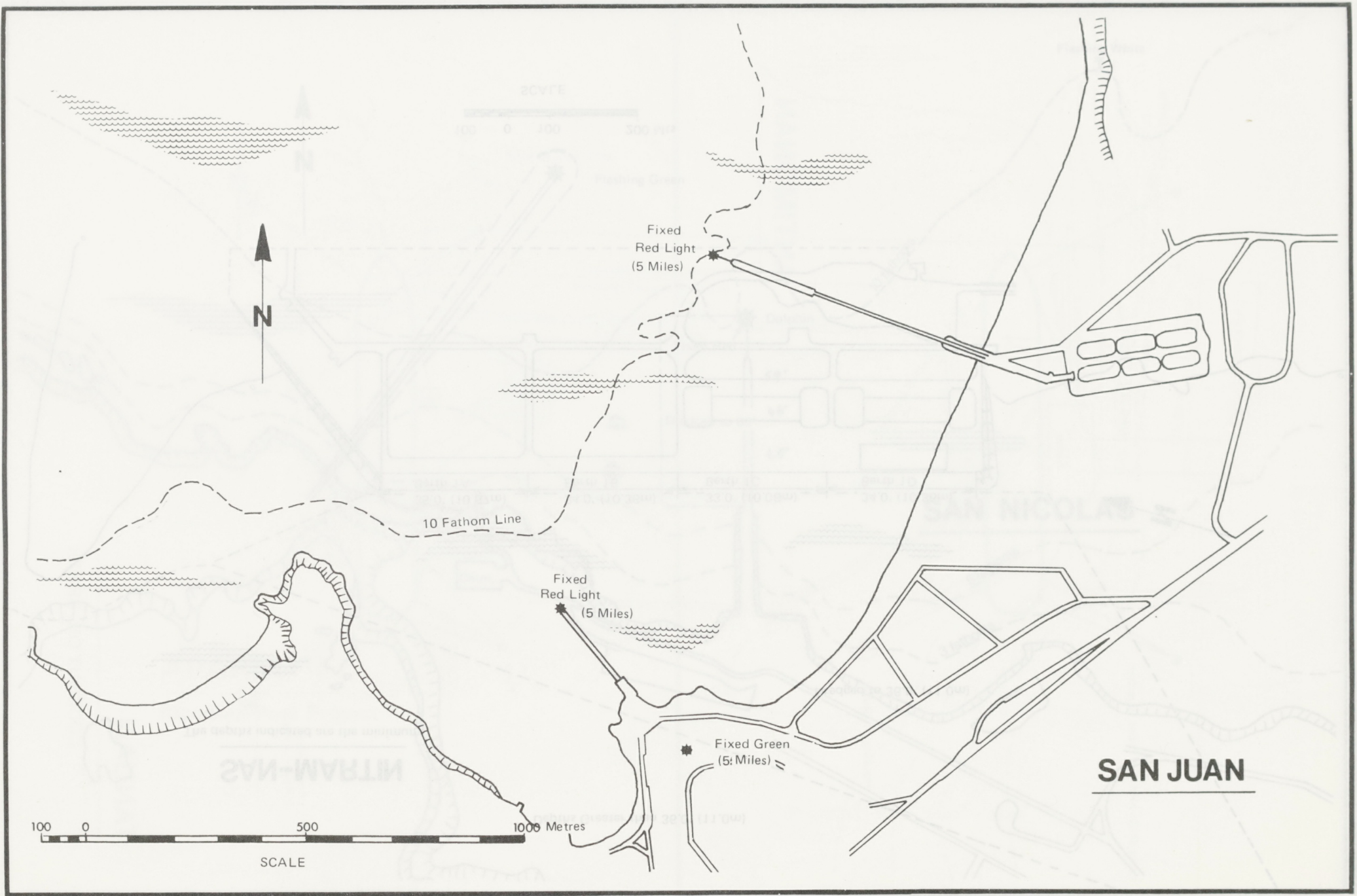






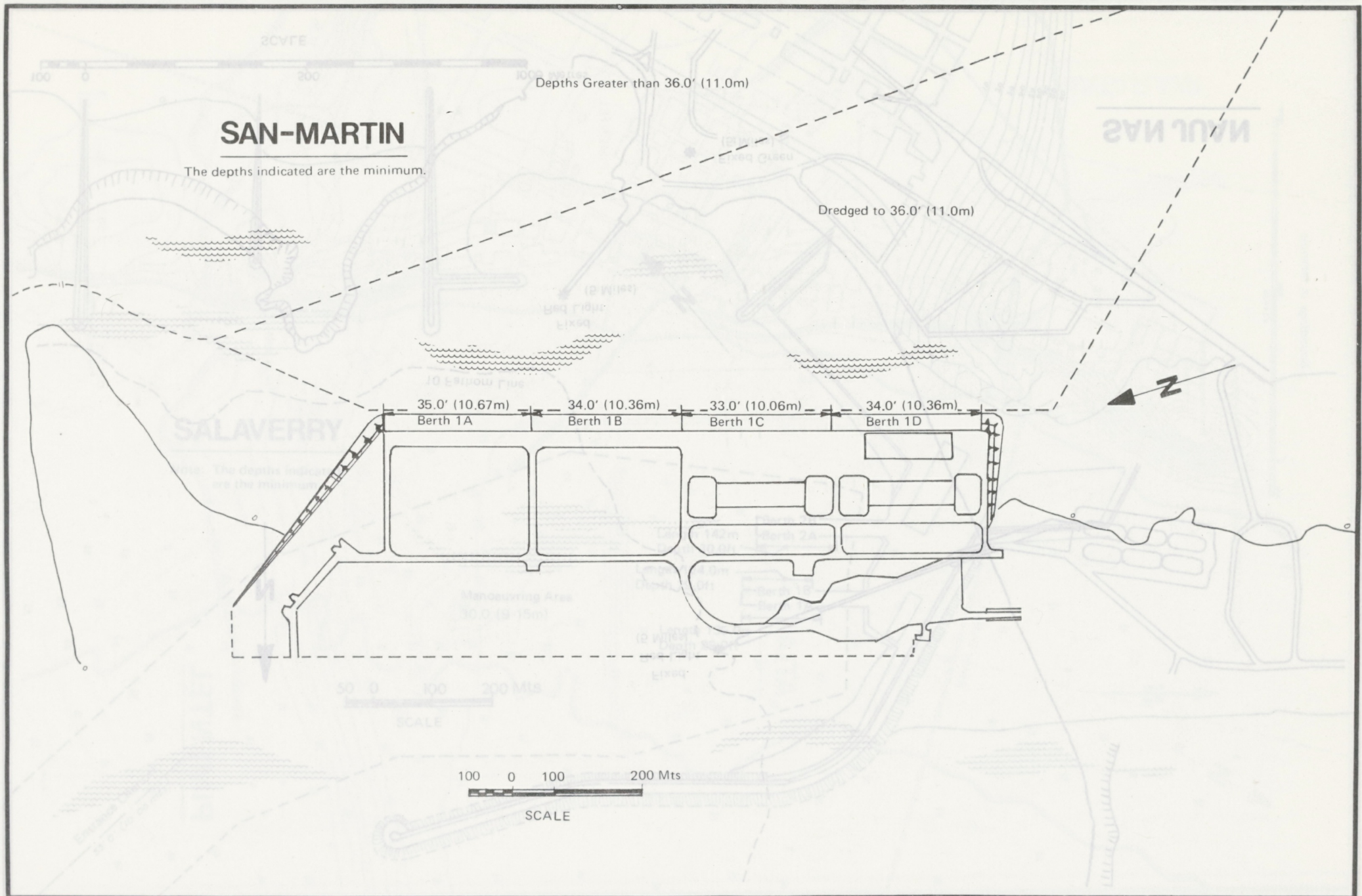




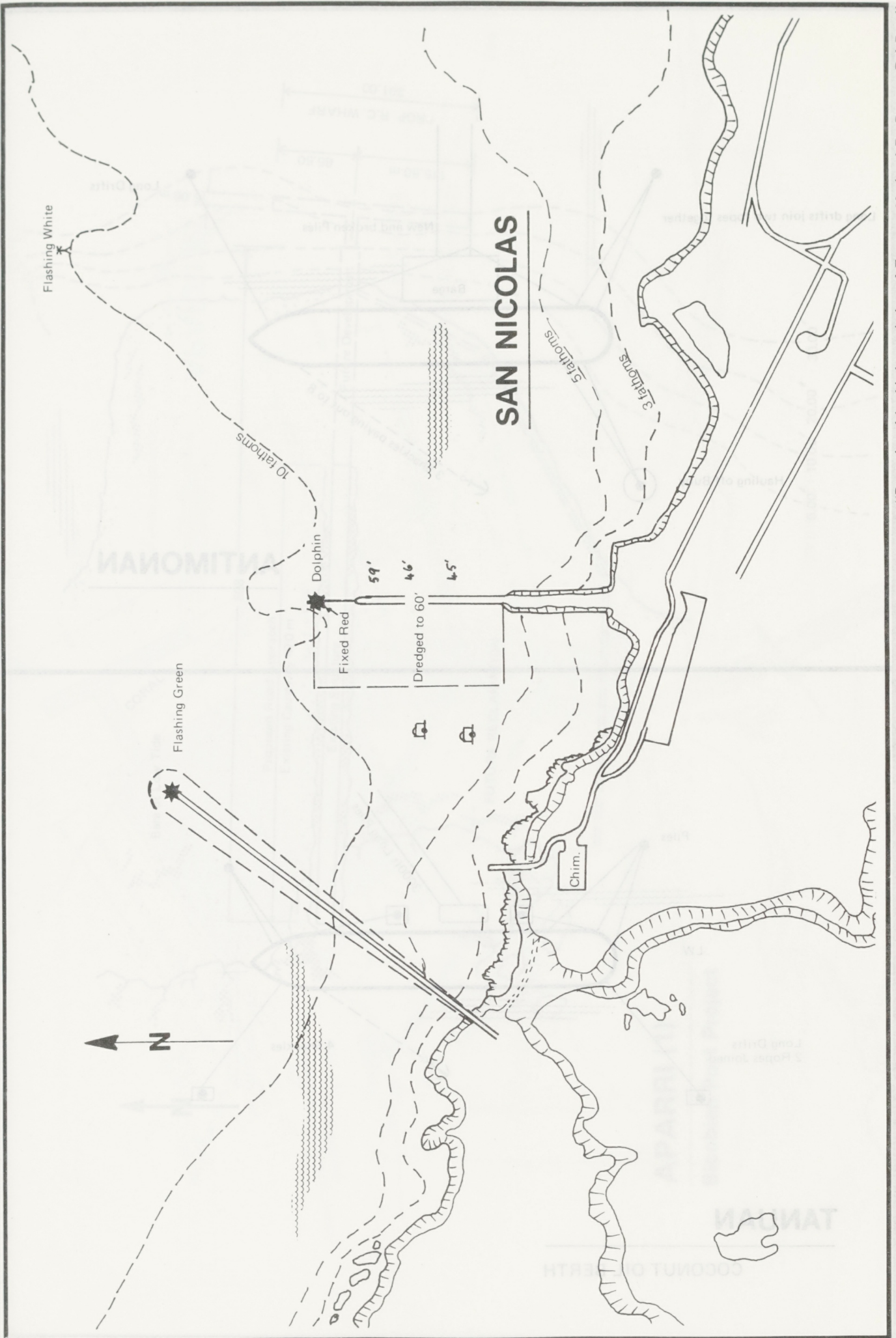


"Reproduced by kind permission of Empresa Nacional De Puertos Del Peru".

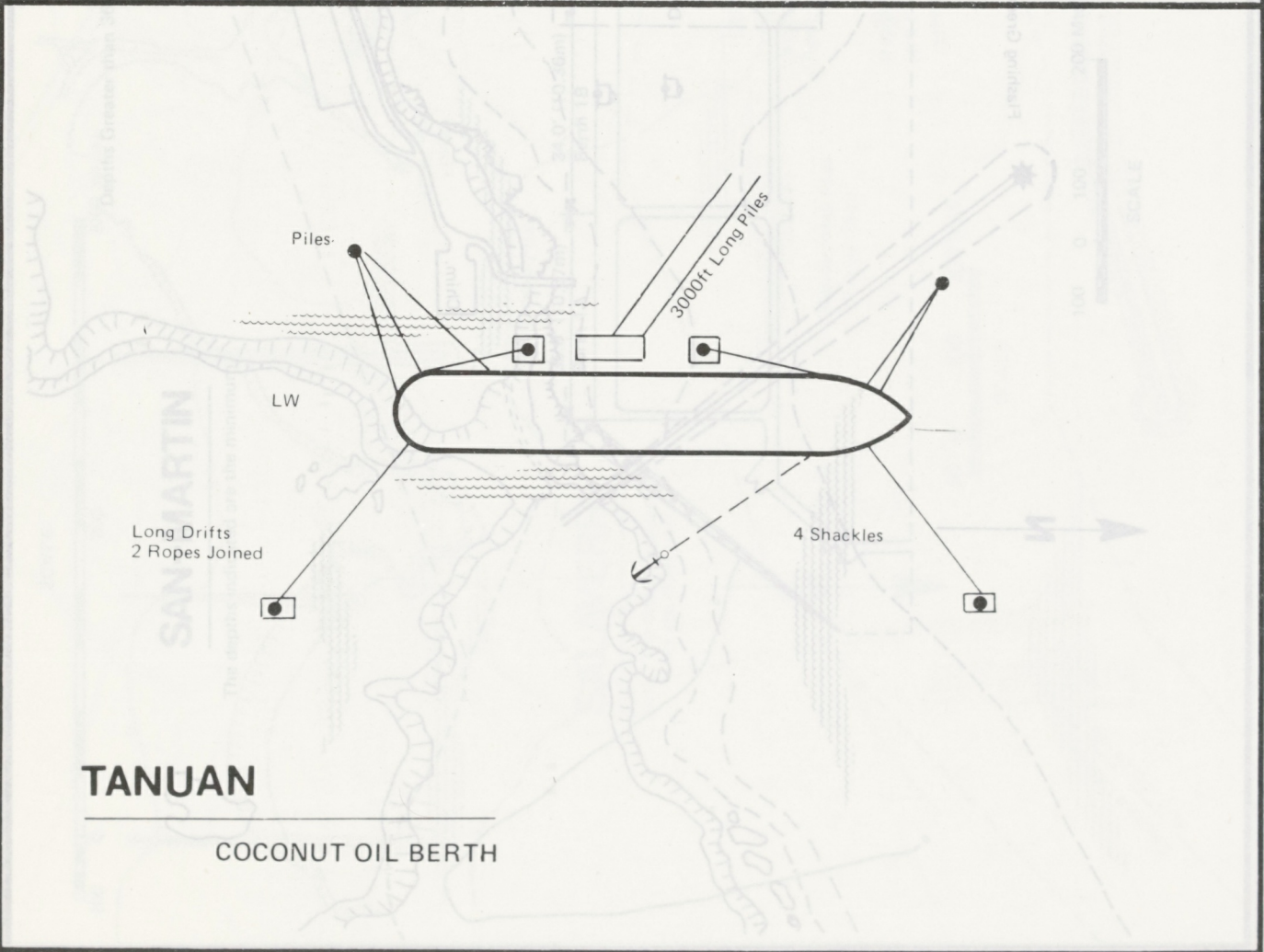
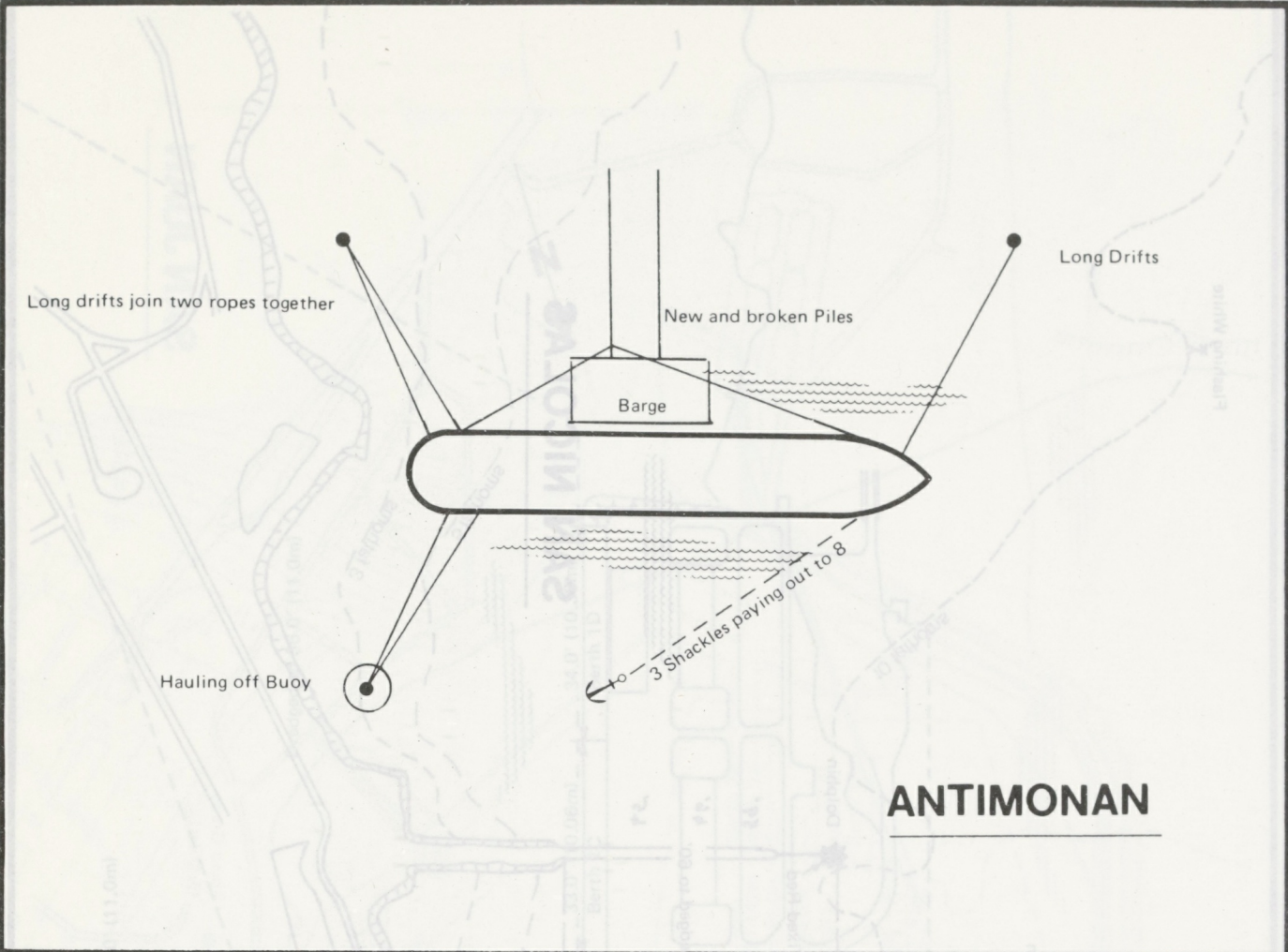




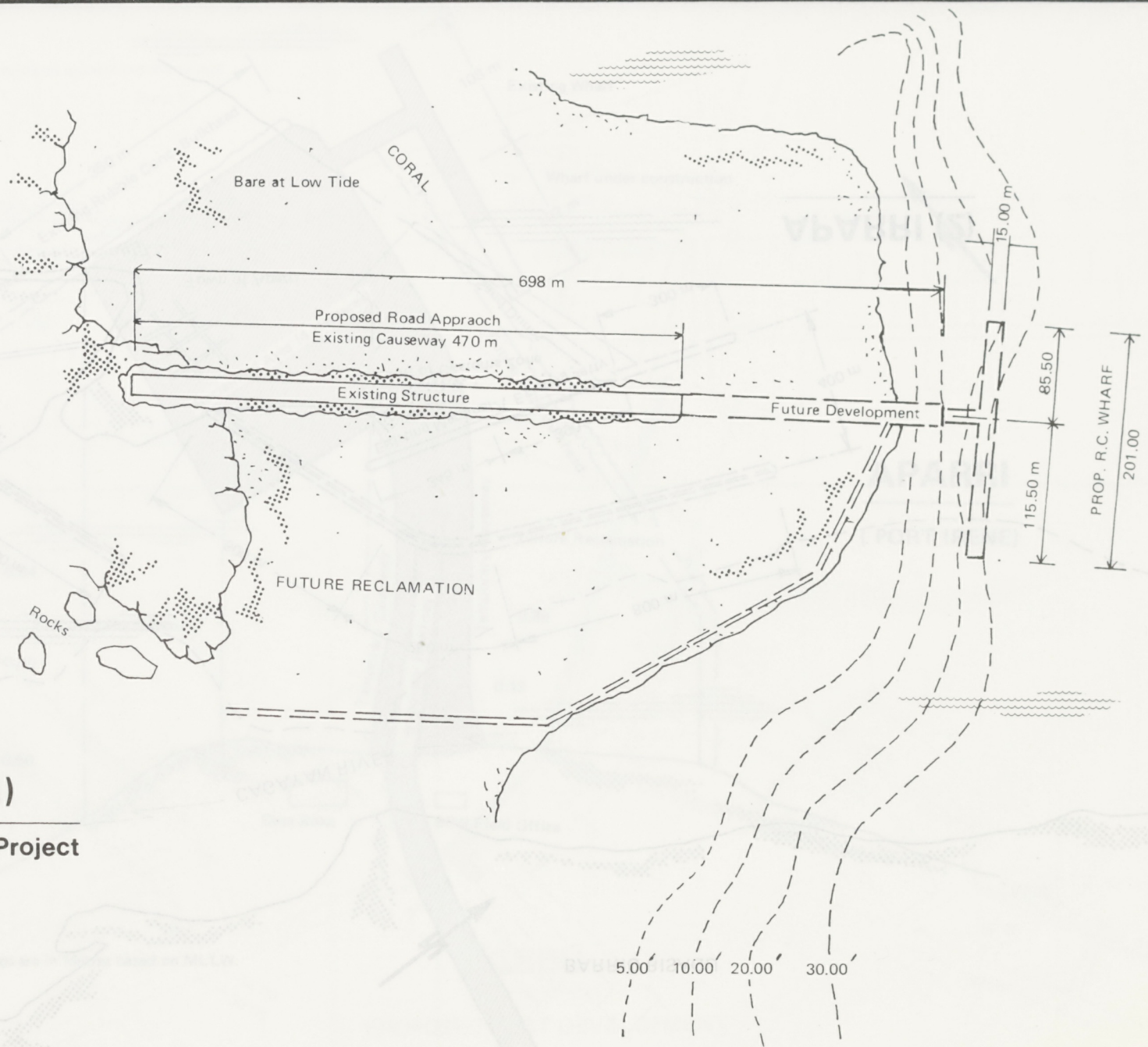
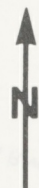








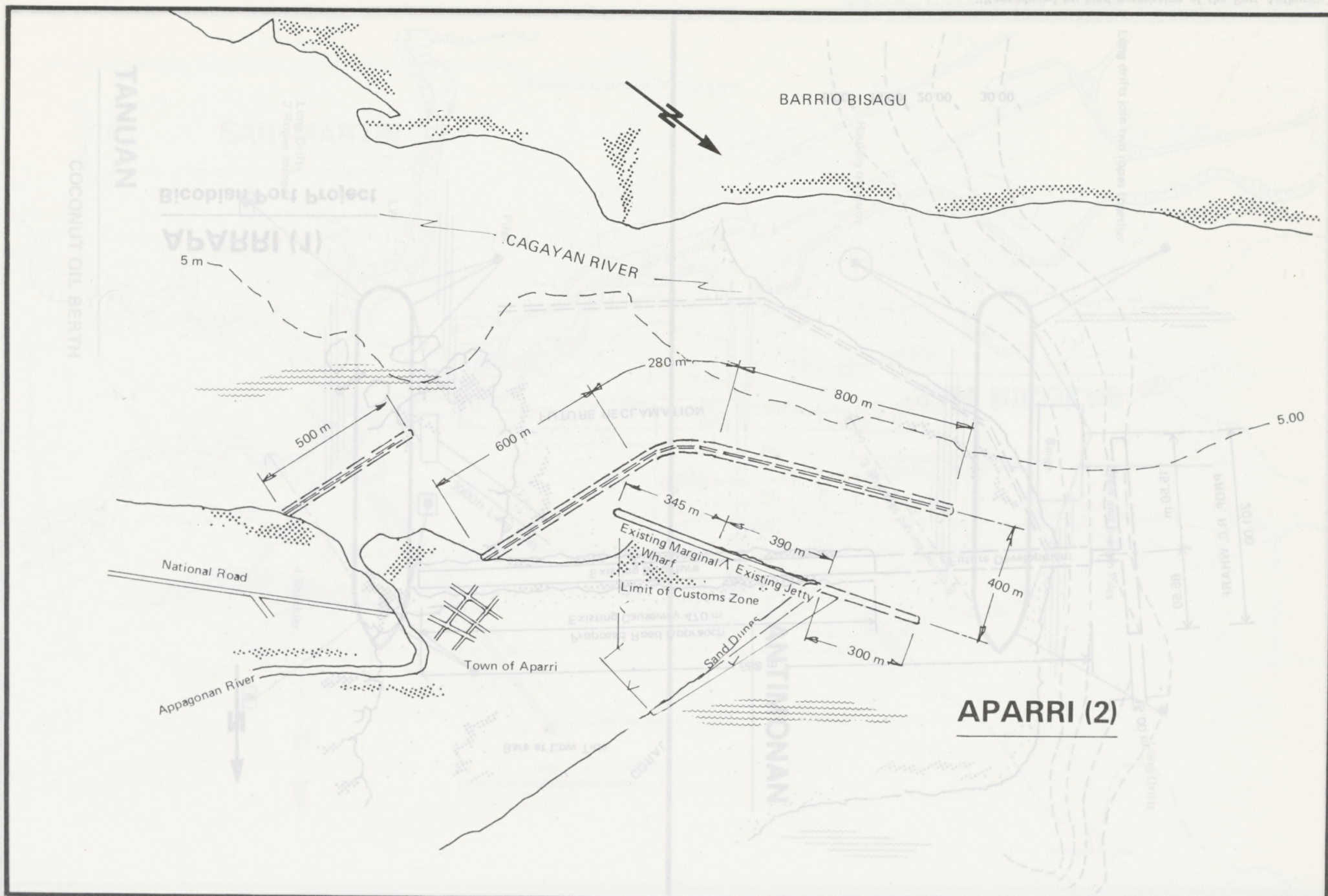




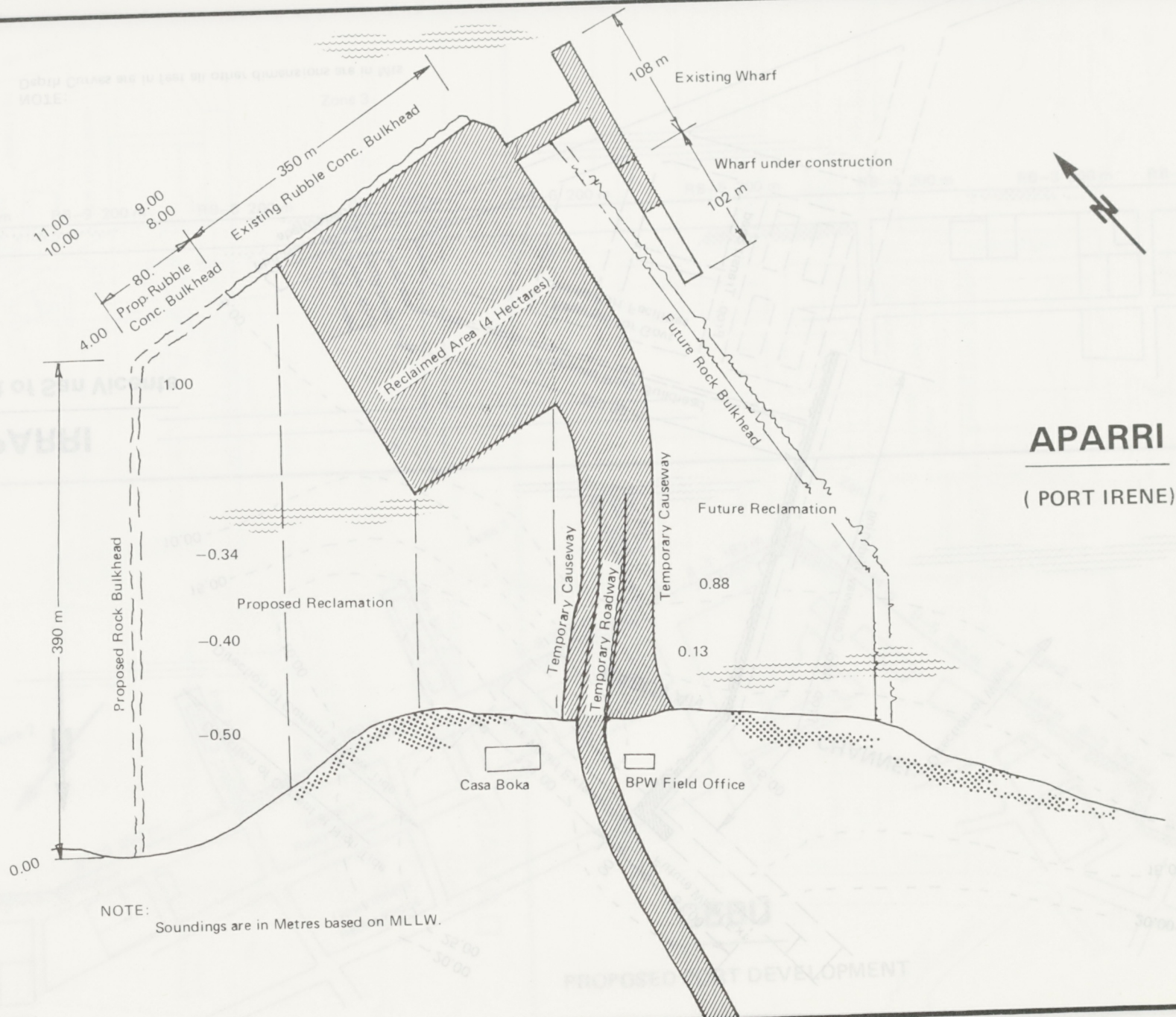
## APARRI (1)

Bicobian Port Project









# APARRI

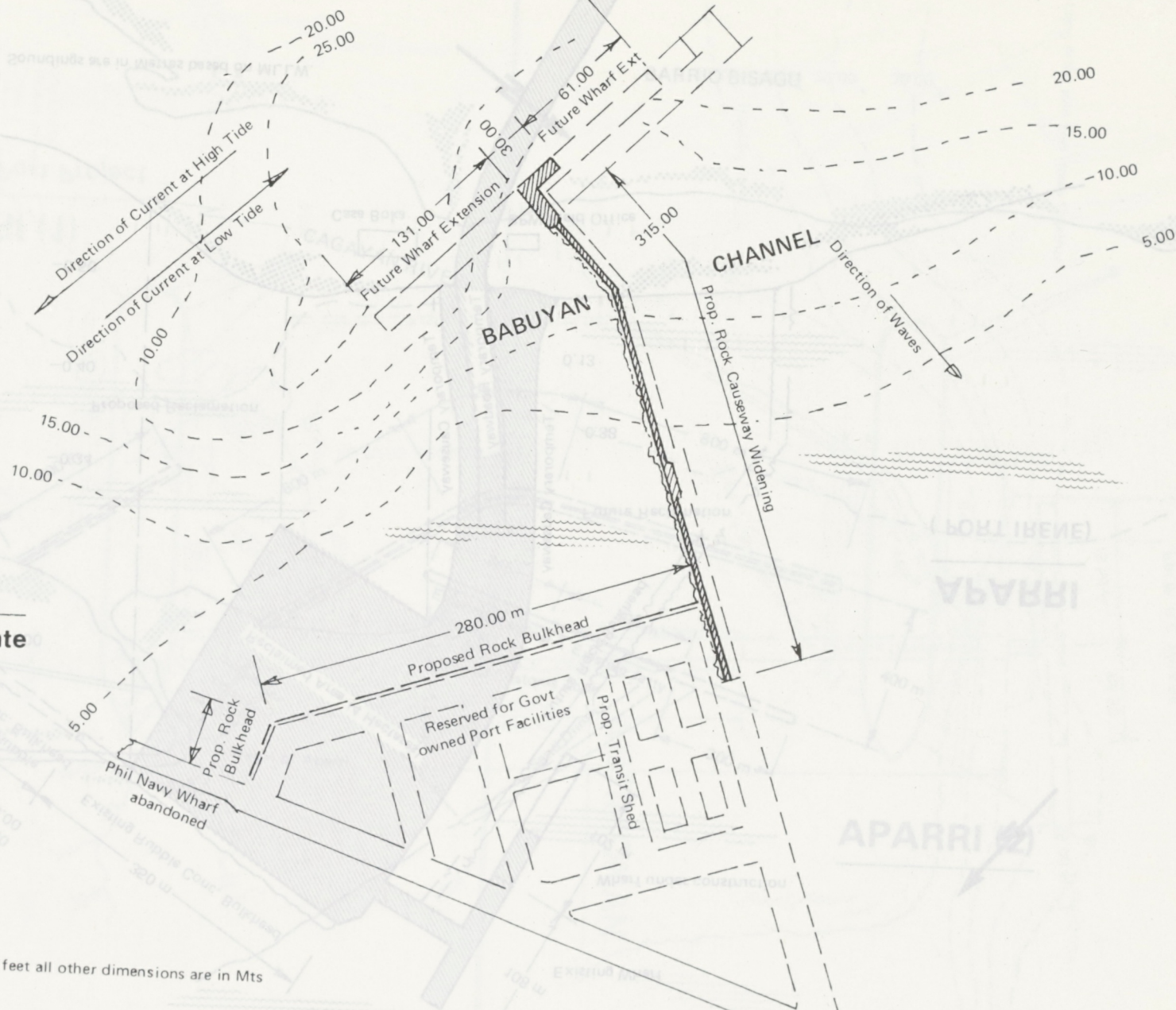
( PORT IRENE )

NOTE:  
Soundings are in Metres based on MLLW.

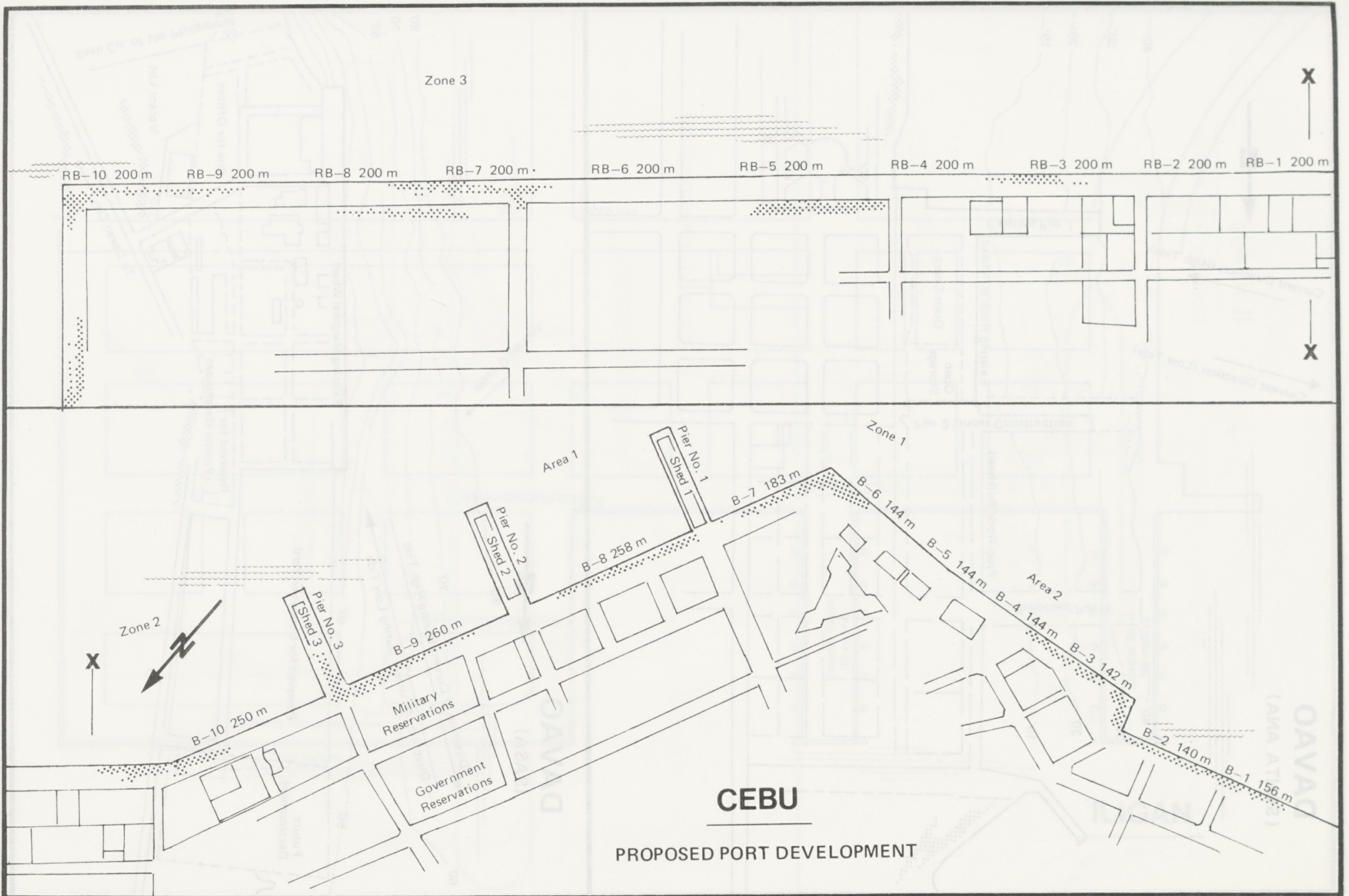


# **APARRI** Port of San Vicente

NOTE:  
Depth Curves are in feet all other dimensions are in Mts



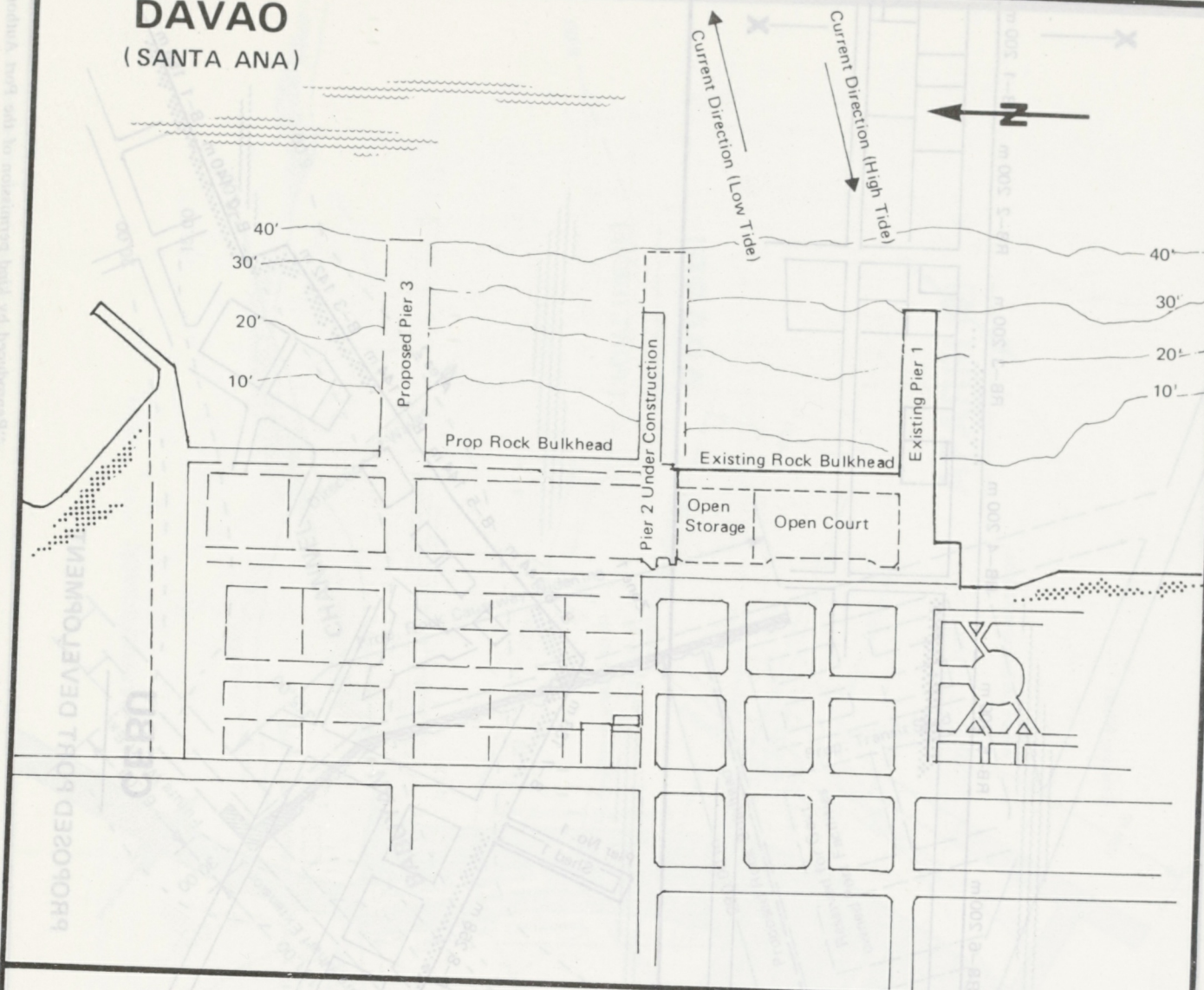




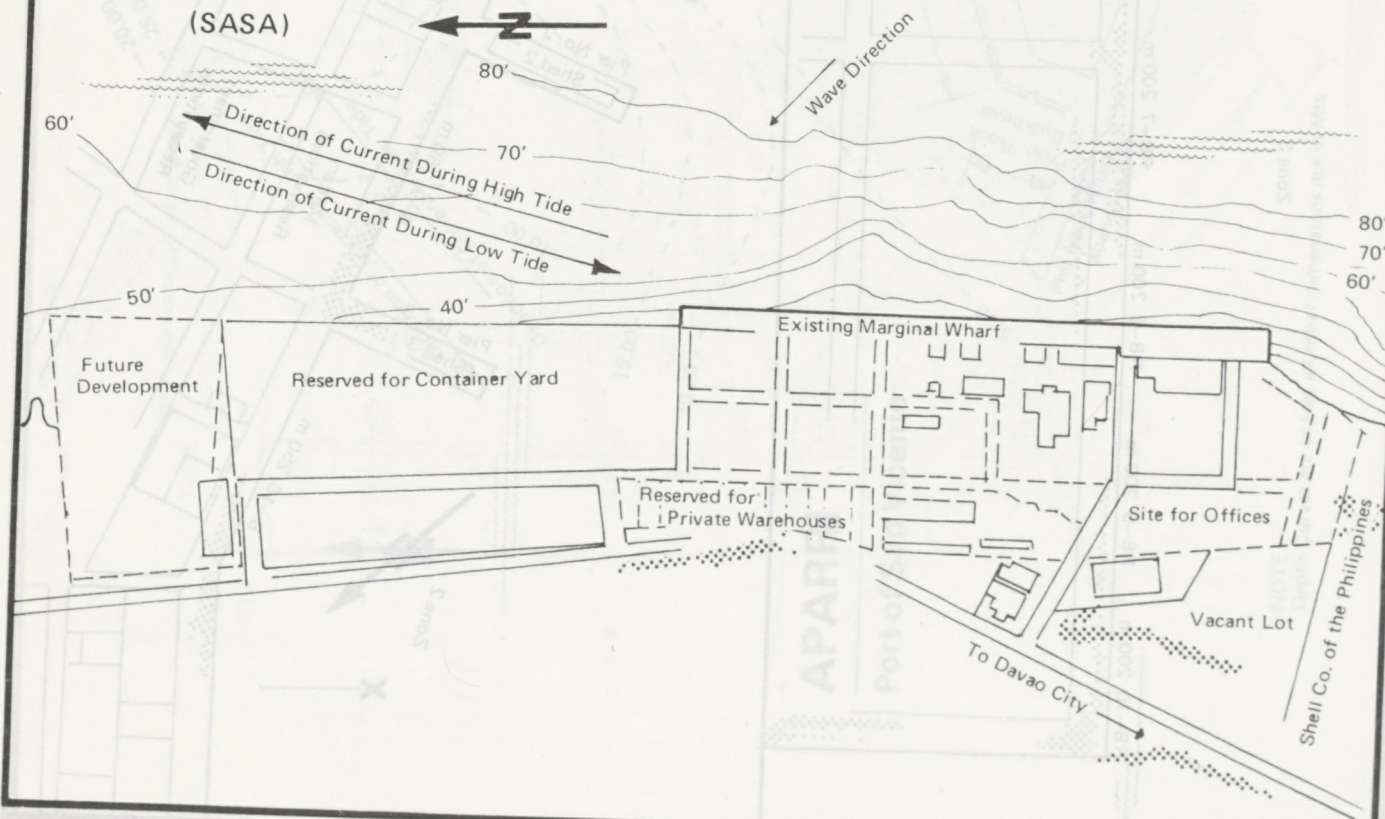
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# DAVAO (SANTA ANA)

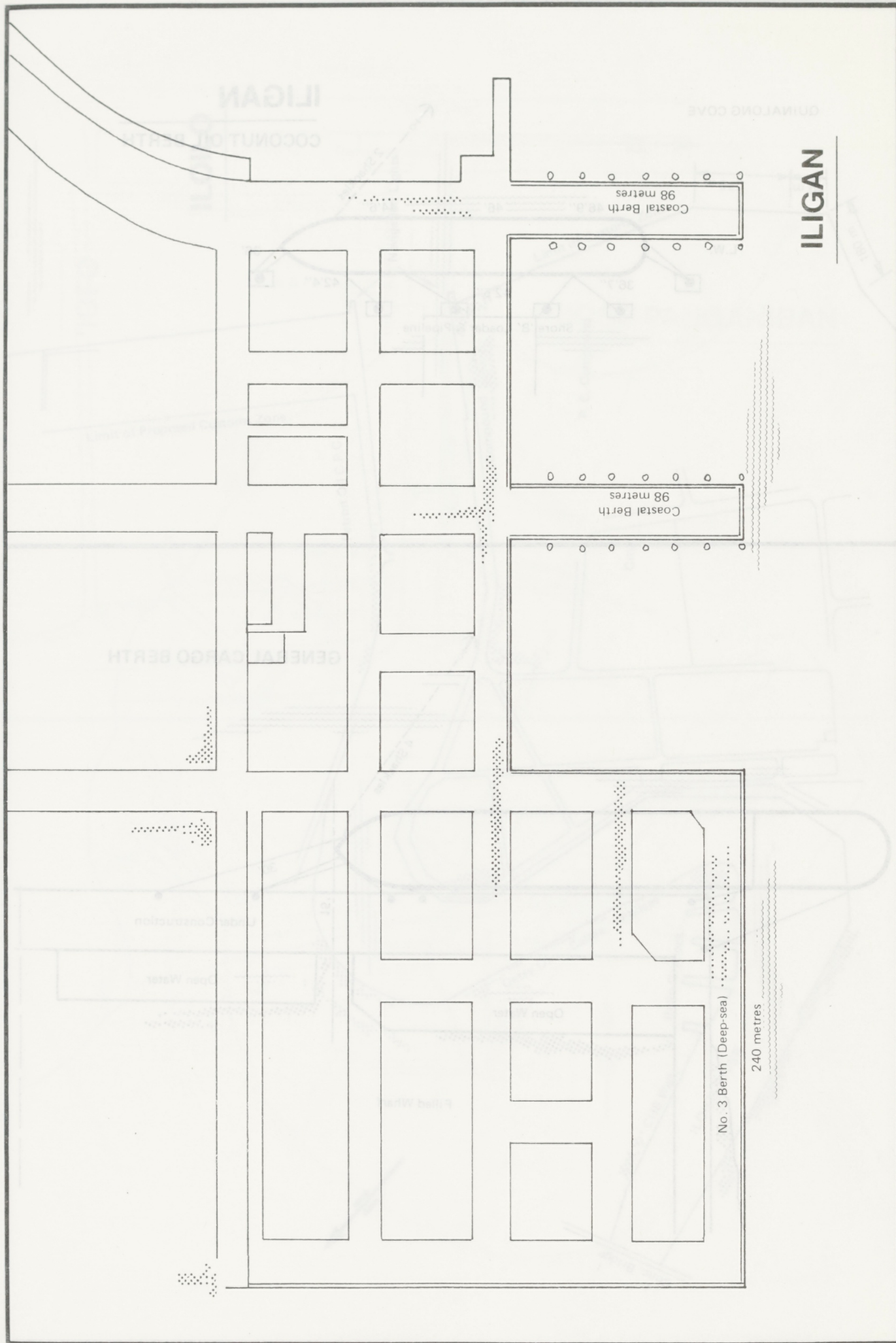


# DAVAO (SASA)





# ILIGAN



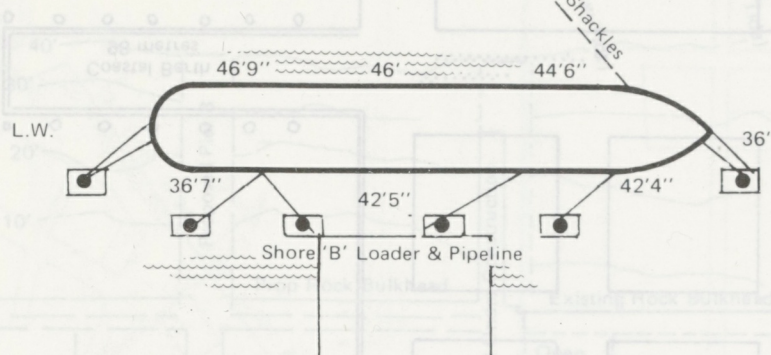


DAVAO  
(SANTA ANA)

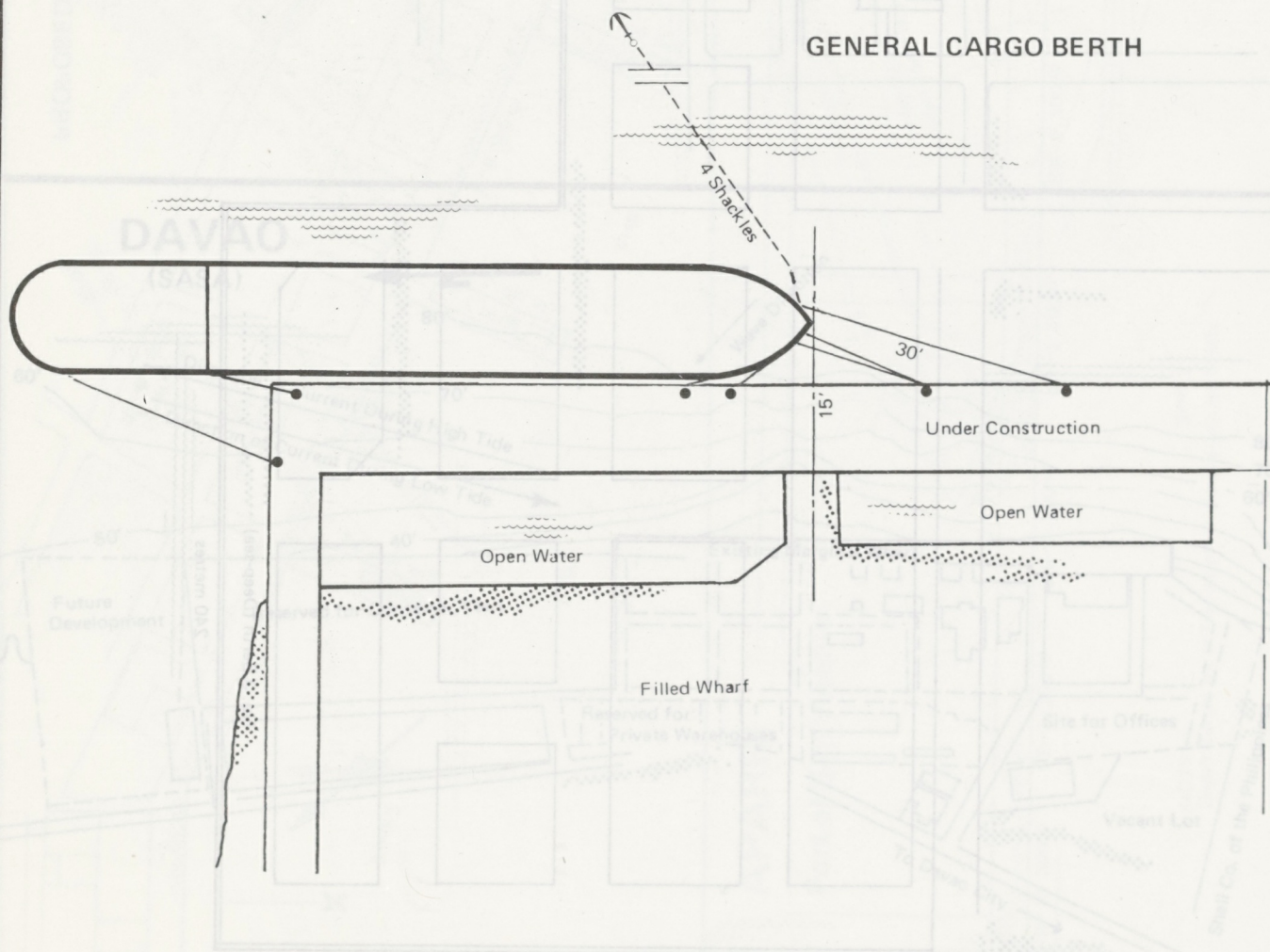
QUINALONG COVE

ILIGAN

COCONUT OIL BERTH



GENERAL CARGO BERTH

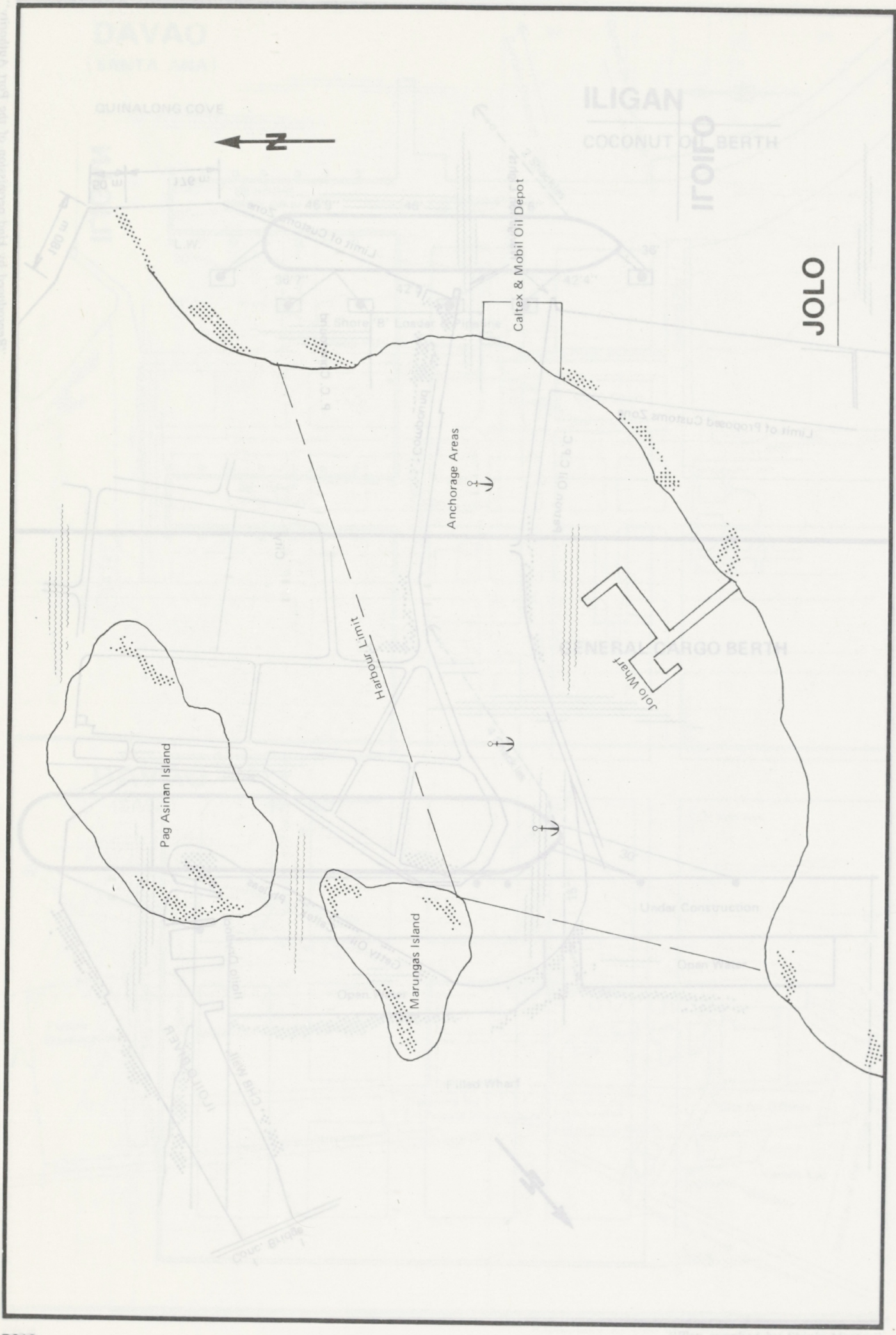




# ILOILO







JOLO



BANCHA DEL OESTE

BANCHA DEL ESTE

## PASAJES

100 0 100 600 metres

SCALE

PASAJES DE SAN JUAN

PASAJES DE SAN PEDRO

TRINCHERPE

AVANZADO

PASAJES ANCHO

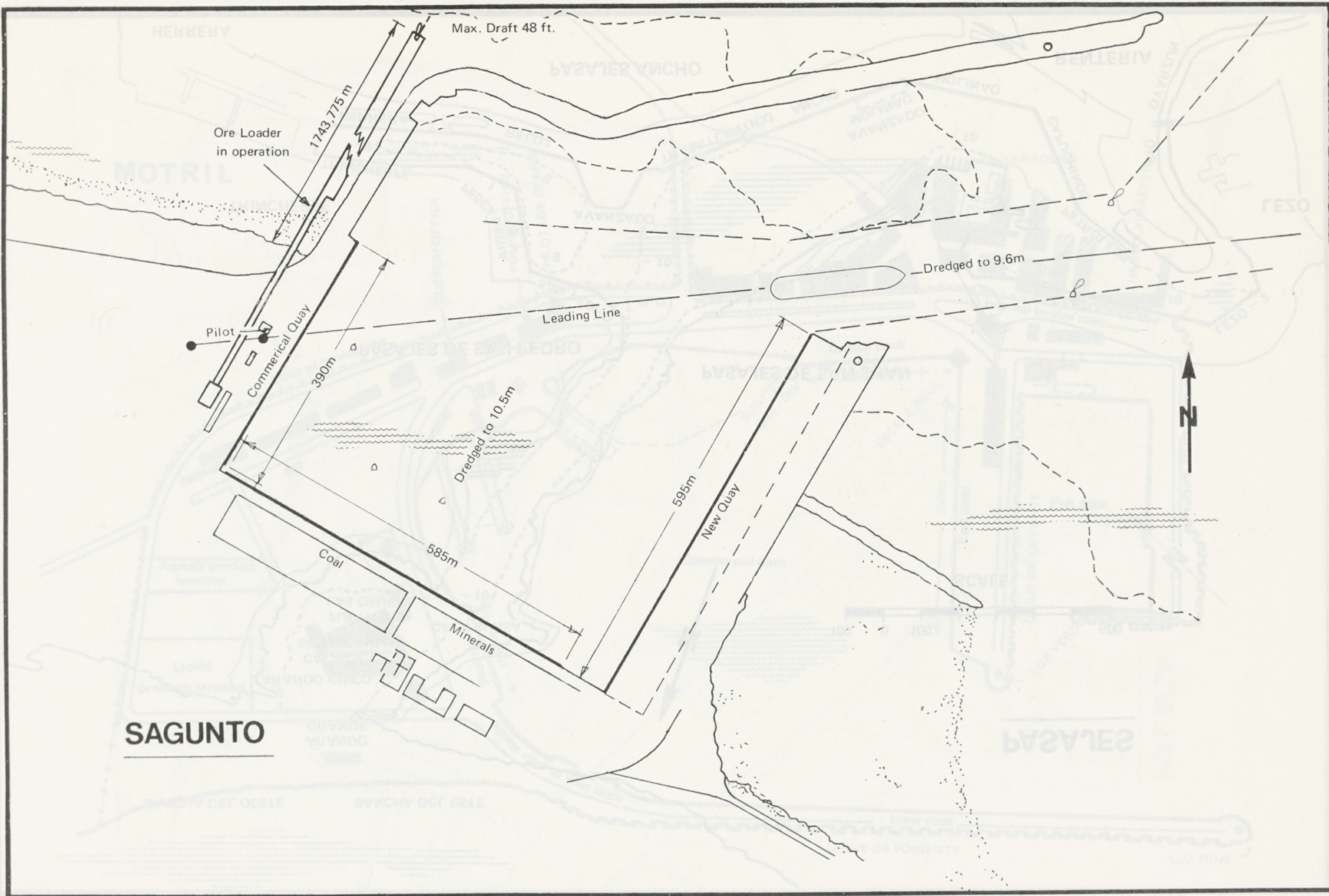
RENTERIA

HERRERA

SPAIN

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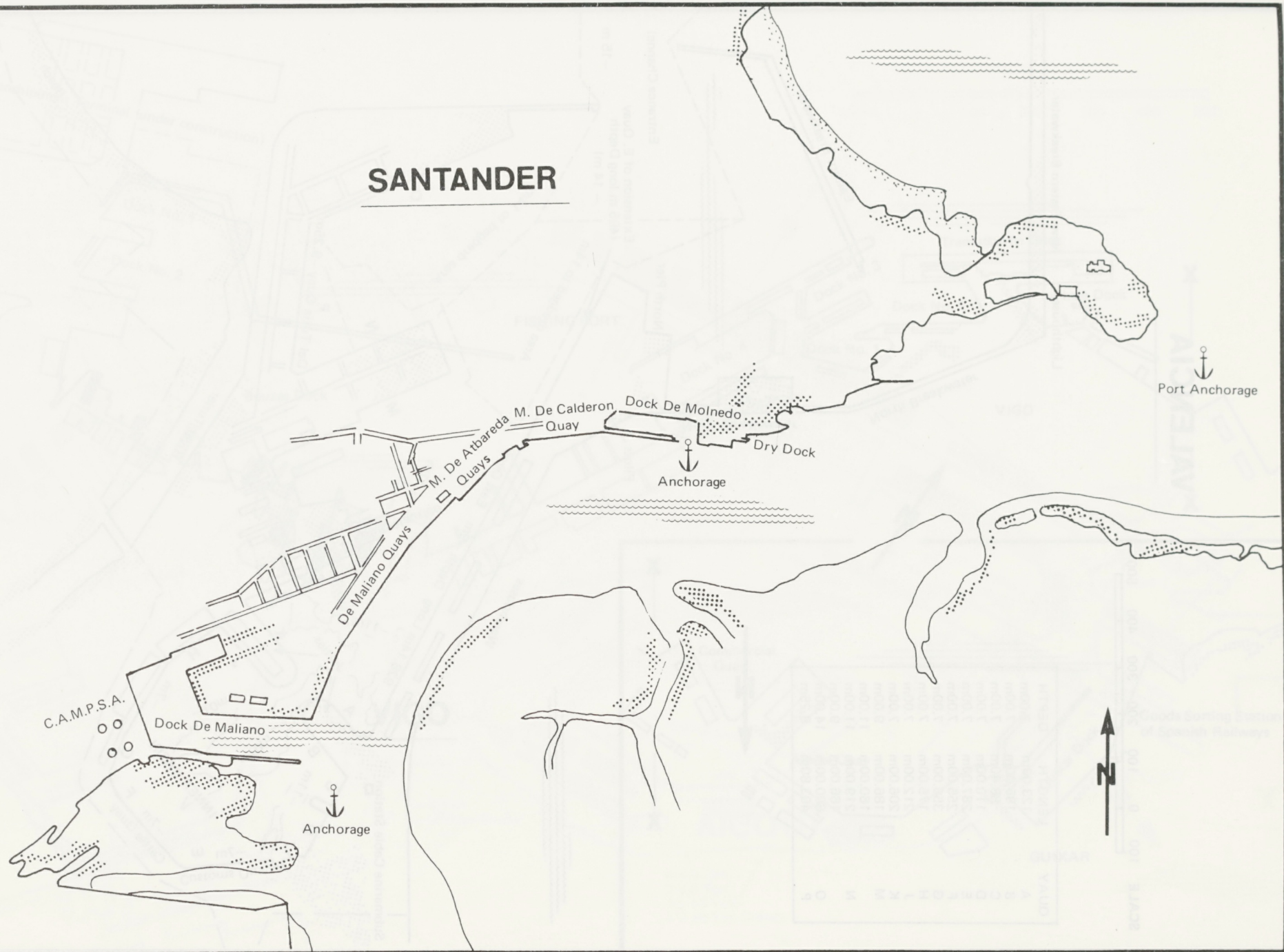




**SAGUNTO**



# SANTANDER



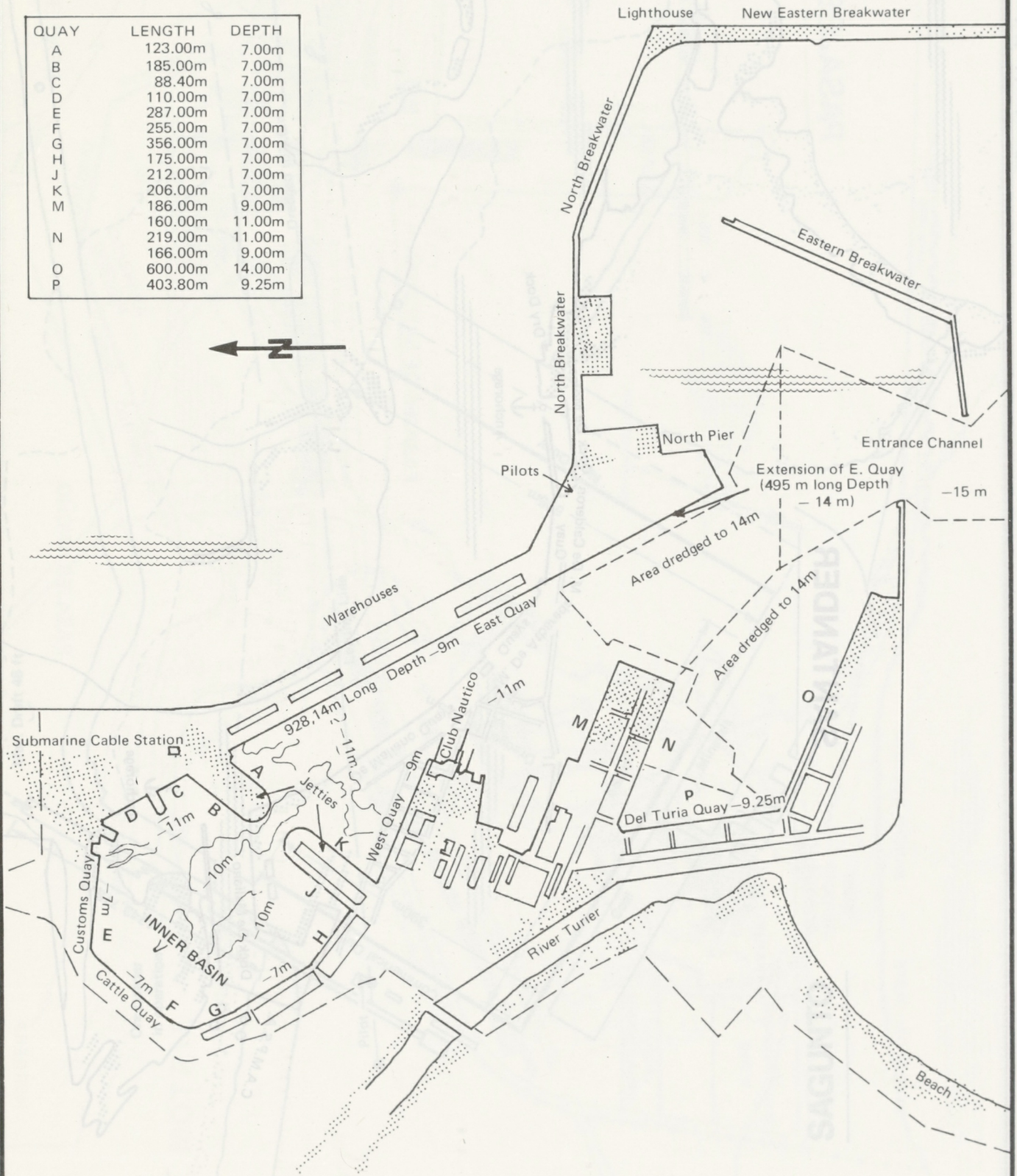
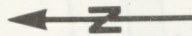
"Reproduced by kind permission of the Port Authority".



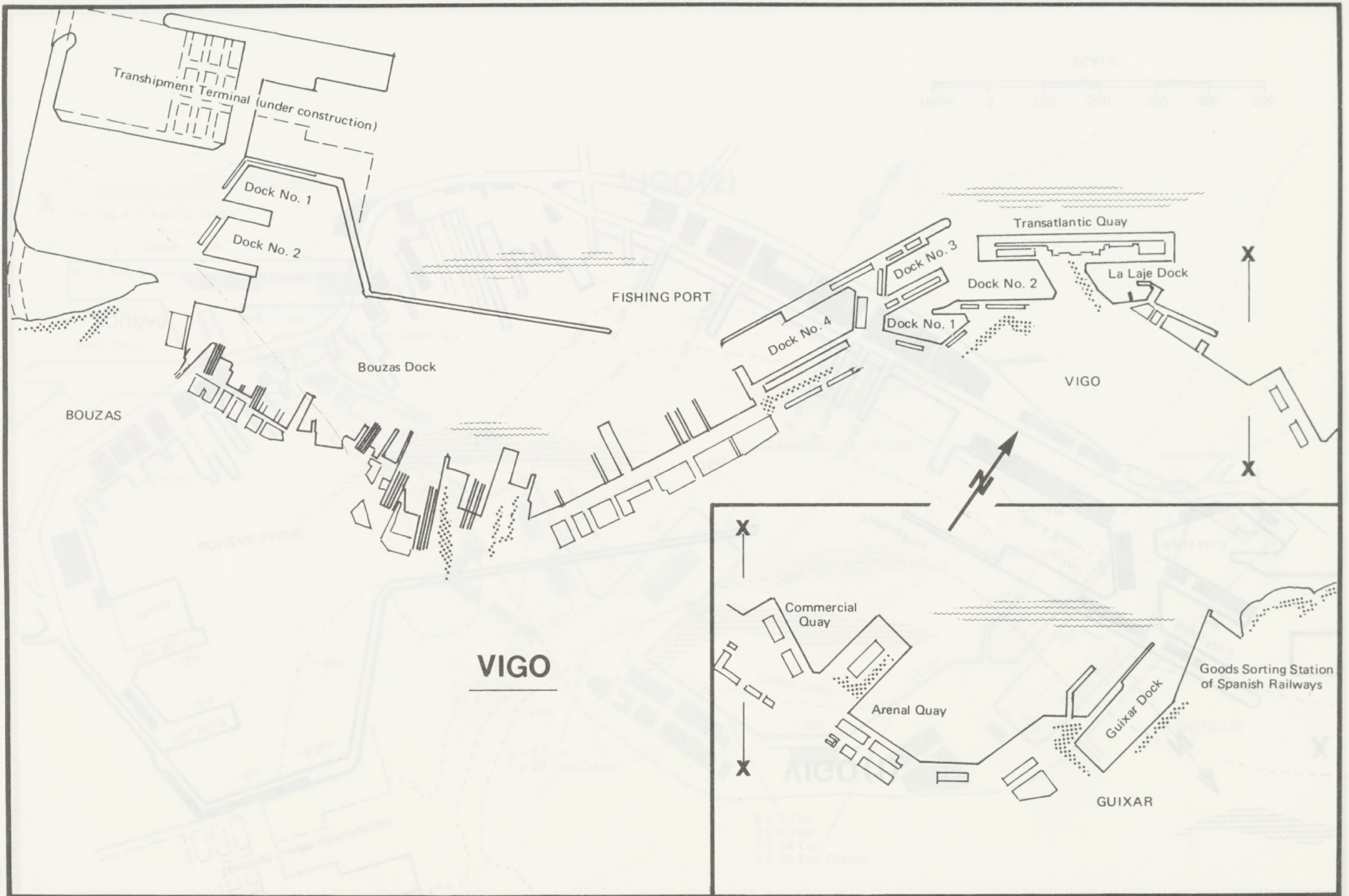
# VALENCIA

SCALE 100 0 100 200 300 400 500

QUAY	LENGTH	DEPTH
A	123.00m	7.00m
B	185.00m	7.00m
C	88.40m	7.00m
D	110.00m	7.00m
E	287.00m	7.00m
F	255.00m	7.00m
G	356.00m	7.00m
H	175.00m	7.00m
J	212.00m	7.00m
K	206.00m	7.00m
M	186.00m	9.00m
N	160.00m	11.00m
N	219.00m	11.00m
O	166.00m	9.00m
P	600.00m	14.00m
P	403.80m	9.25m

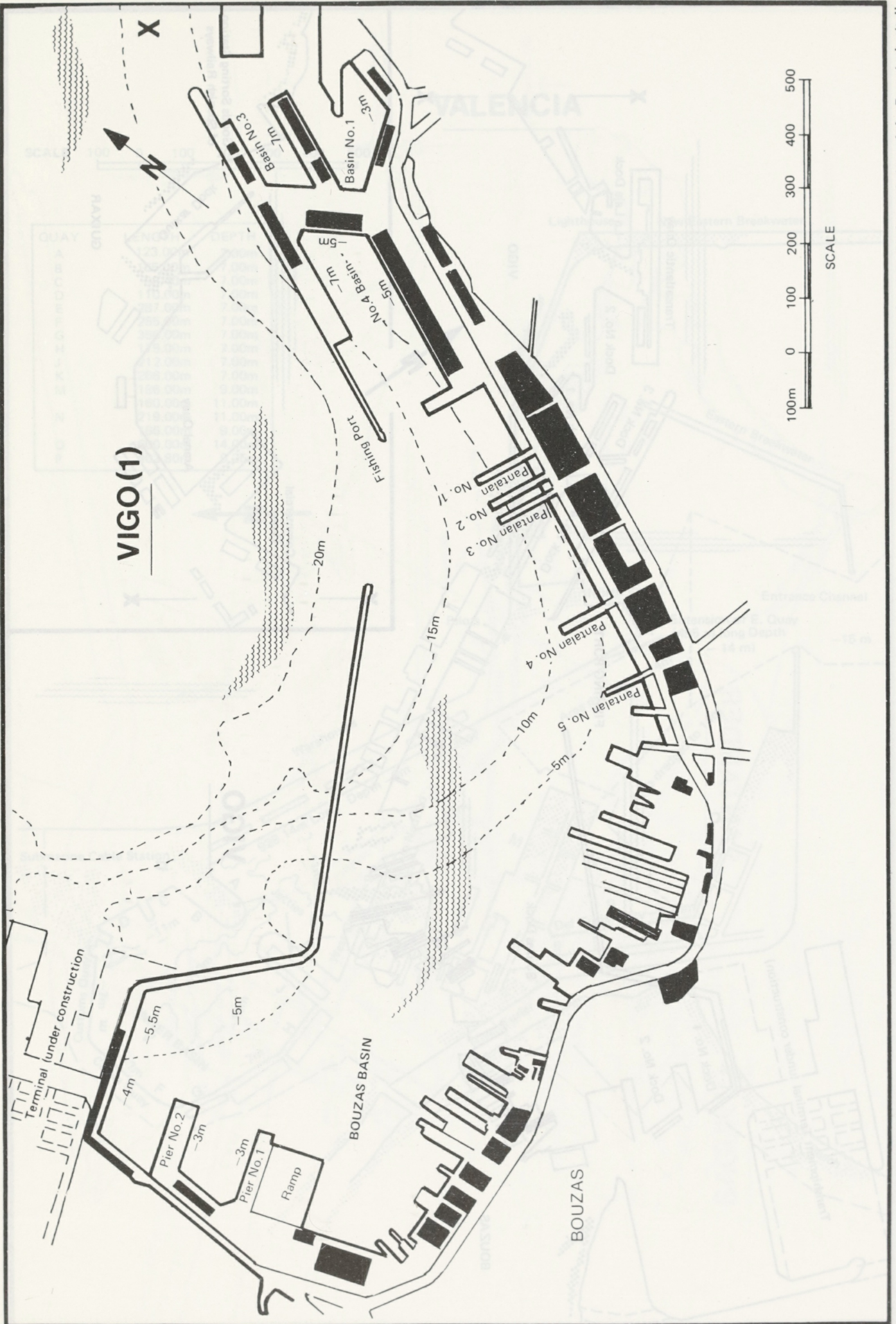




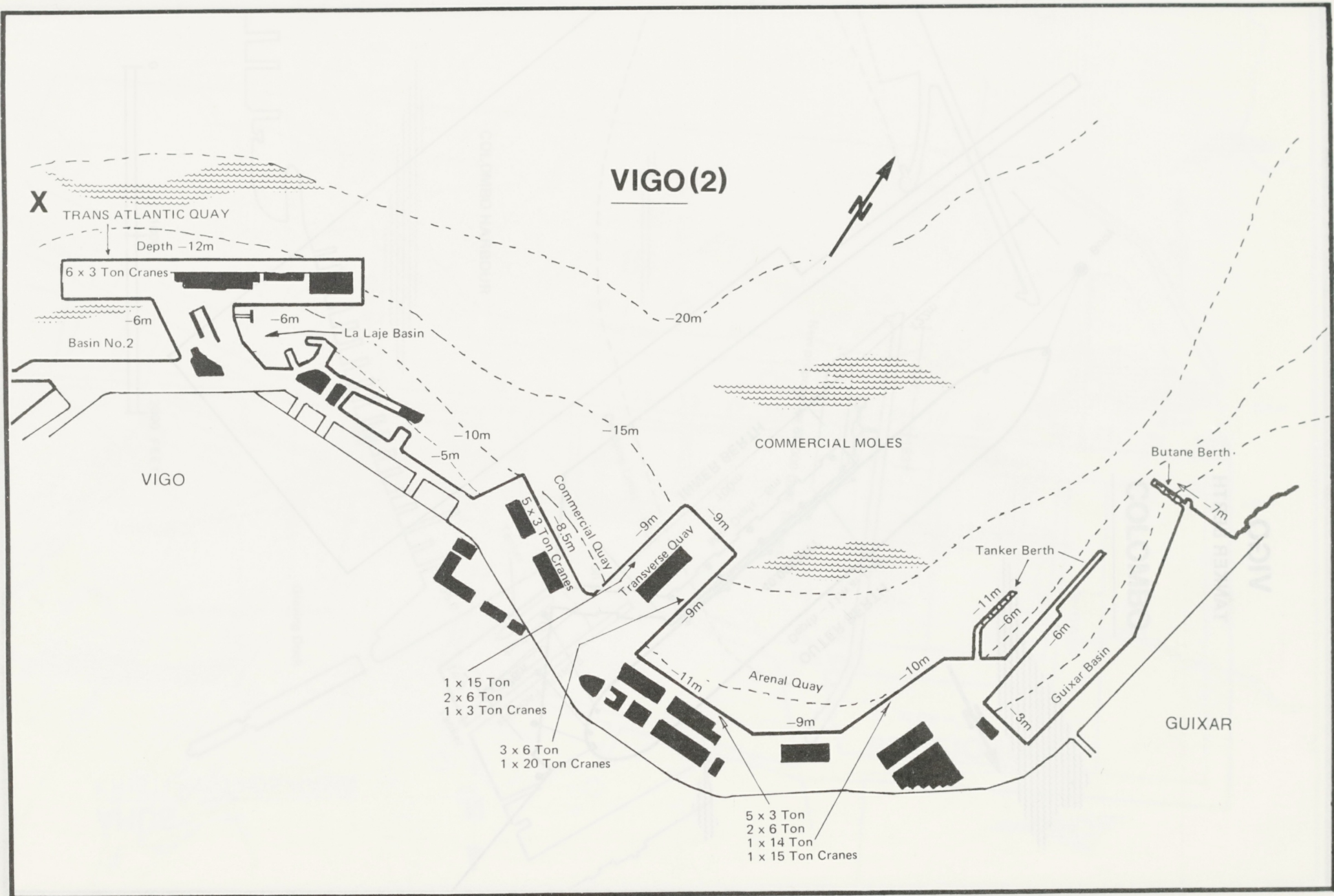


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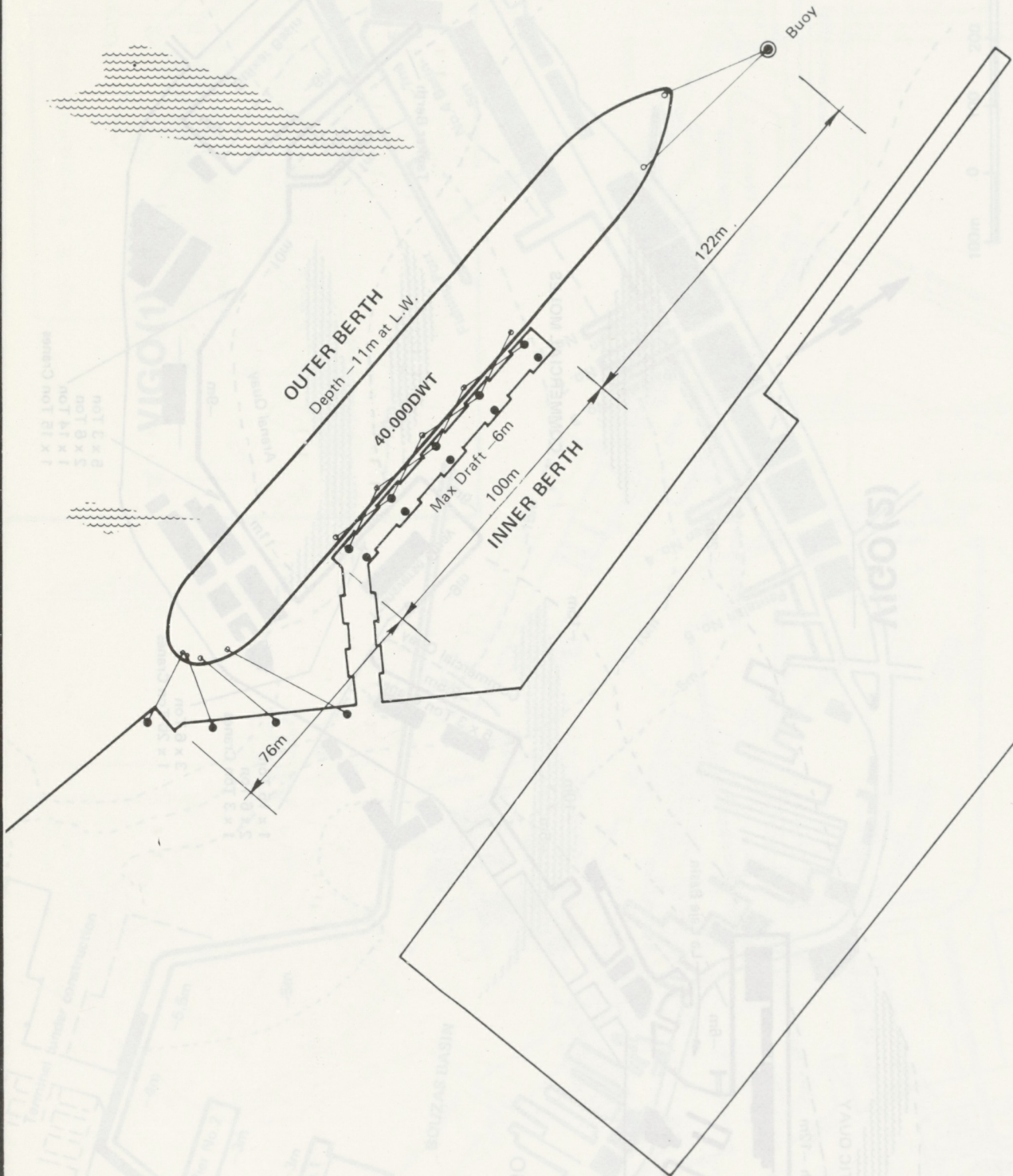


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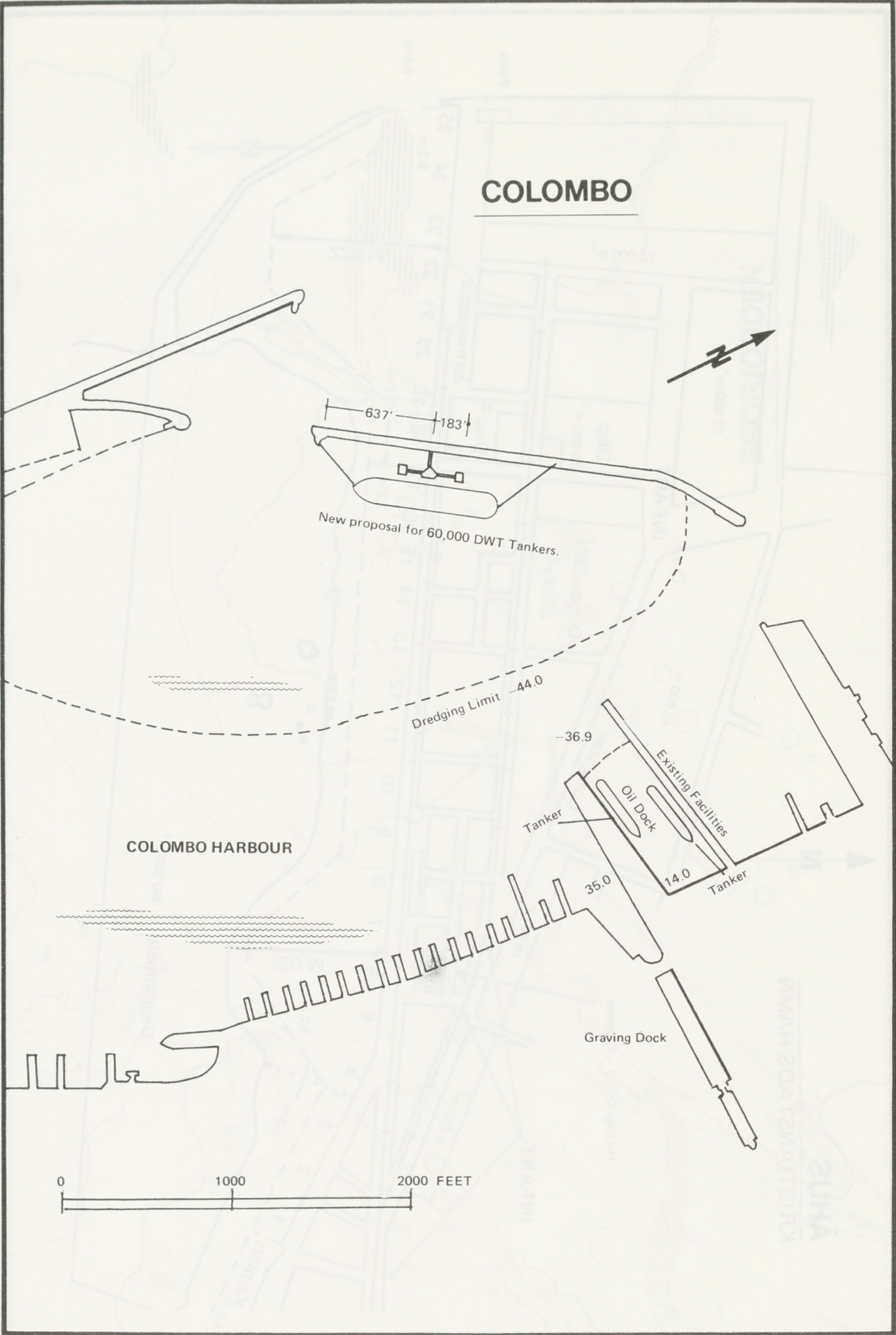


# VIGO

## TANKER BERTH



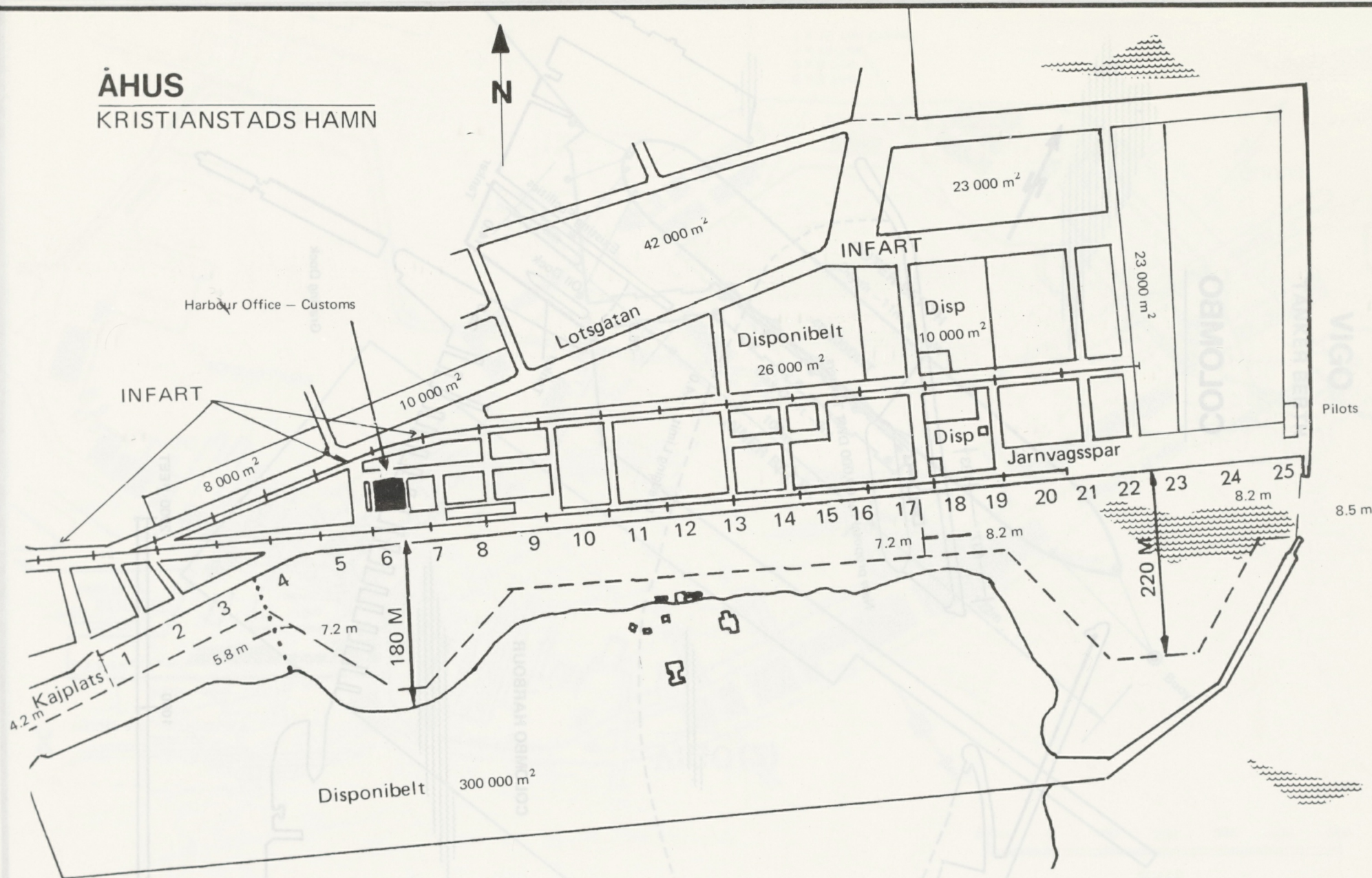




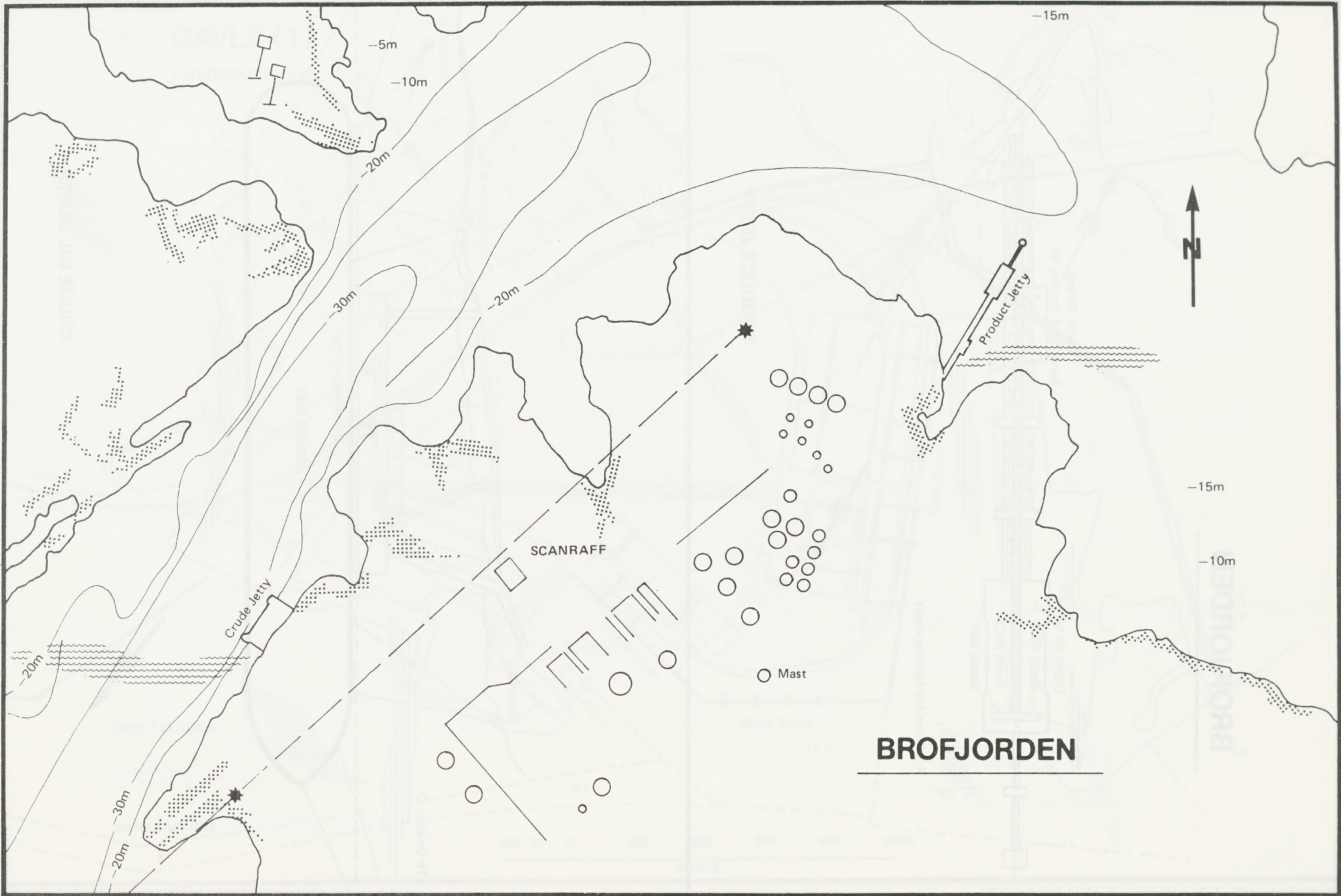


# ÅRHUS

## KRISTIANSTADS HAMN

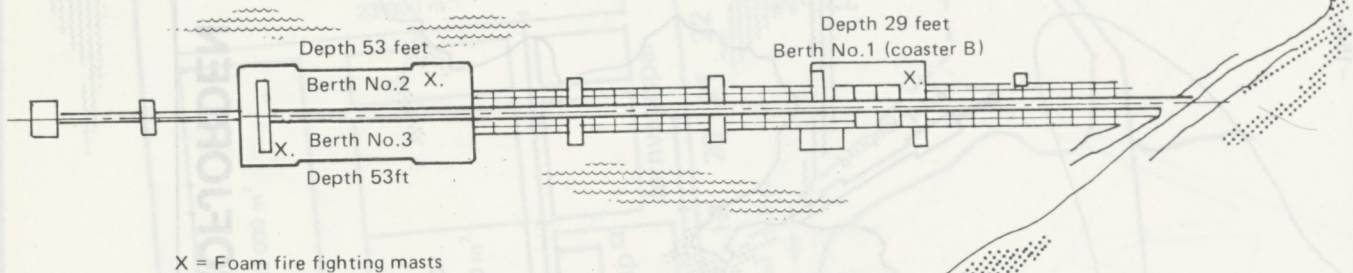




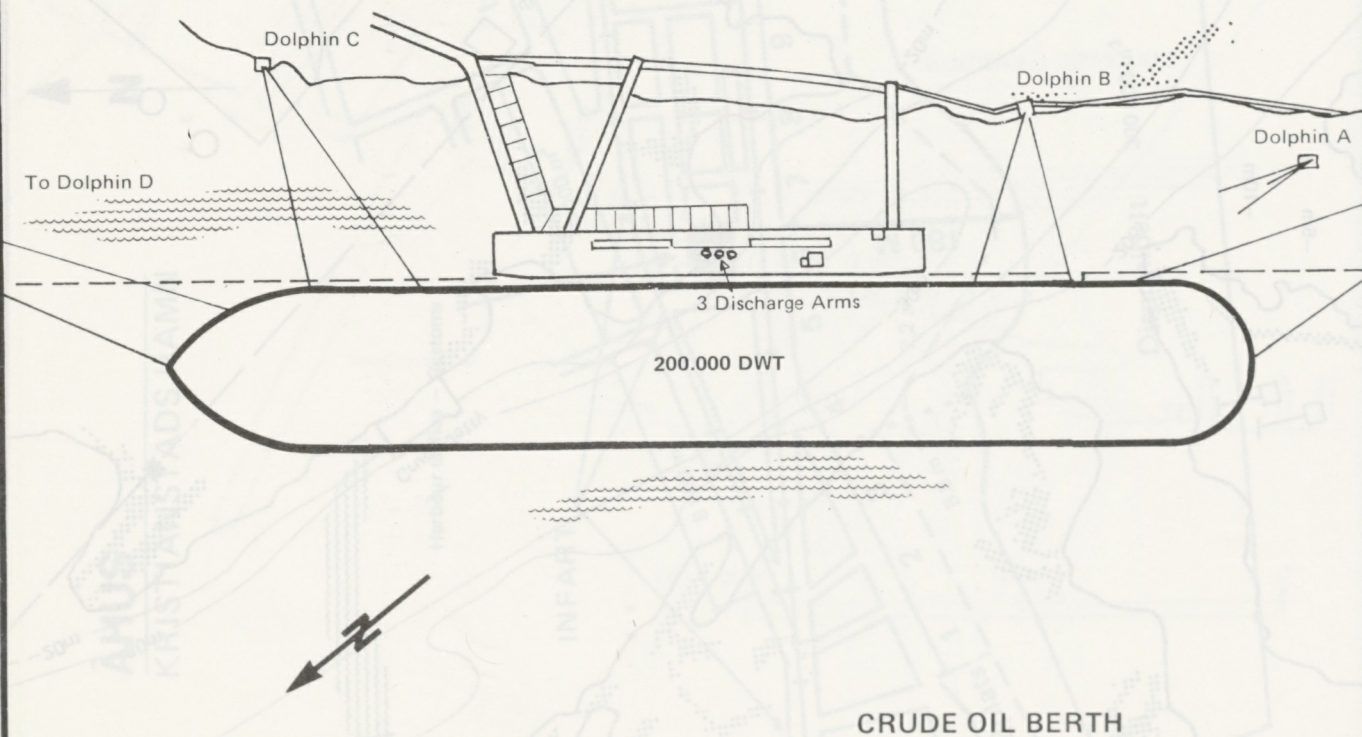




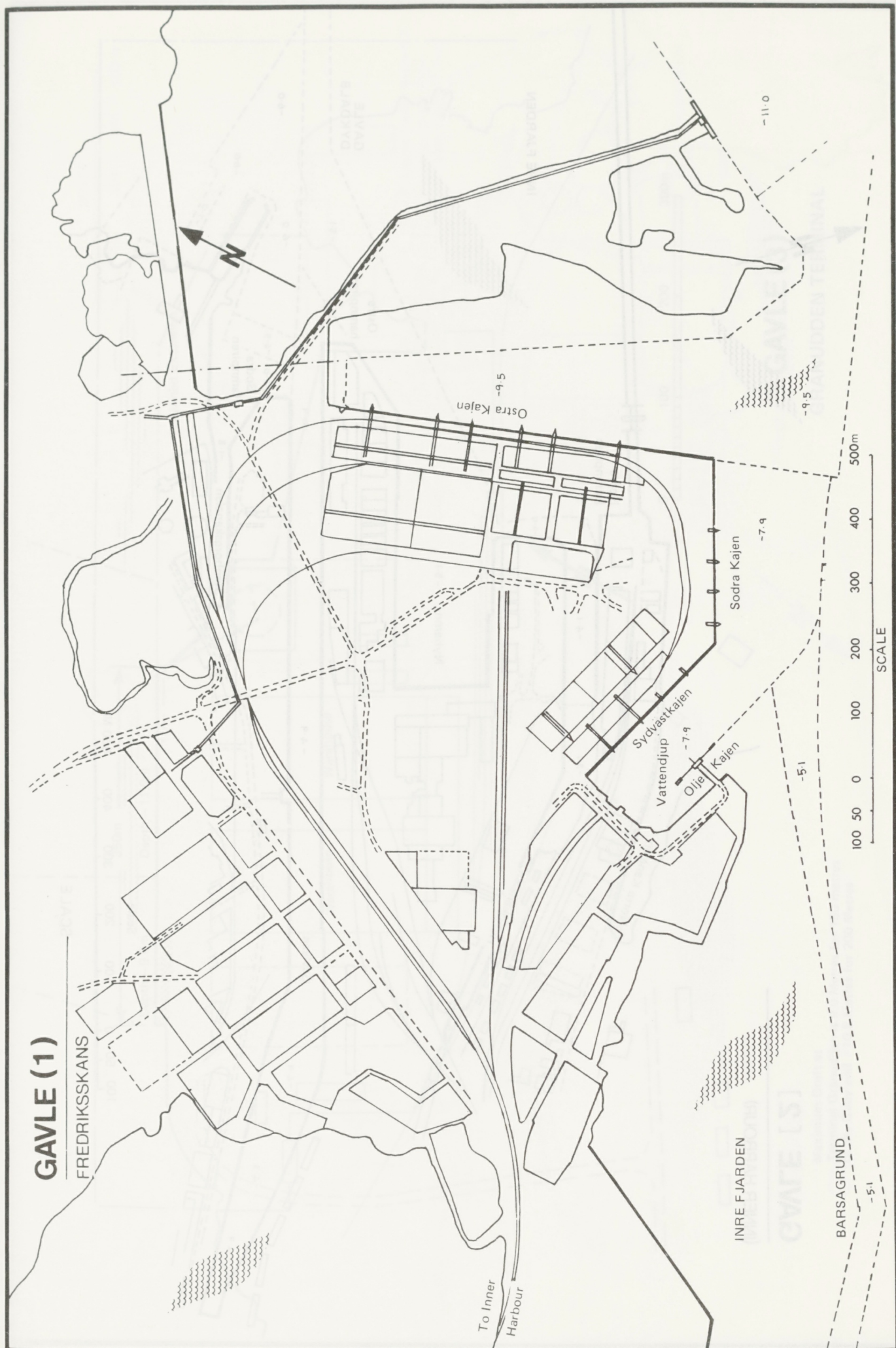
# BROFJORDEN



## PRODUCT JETTY





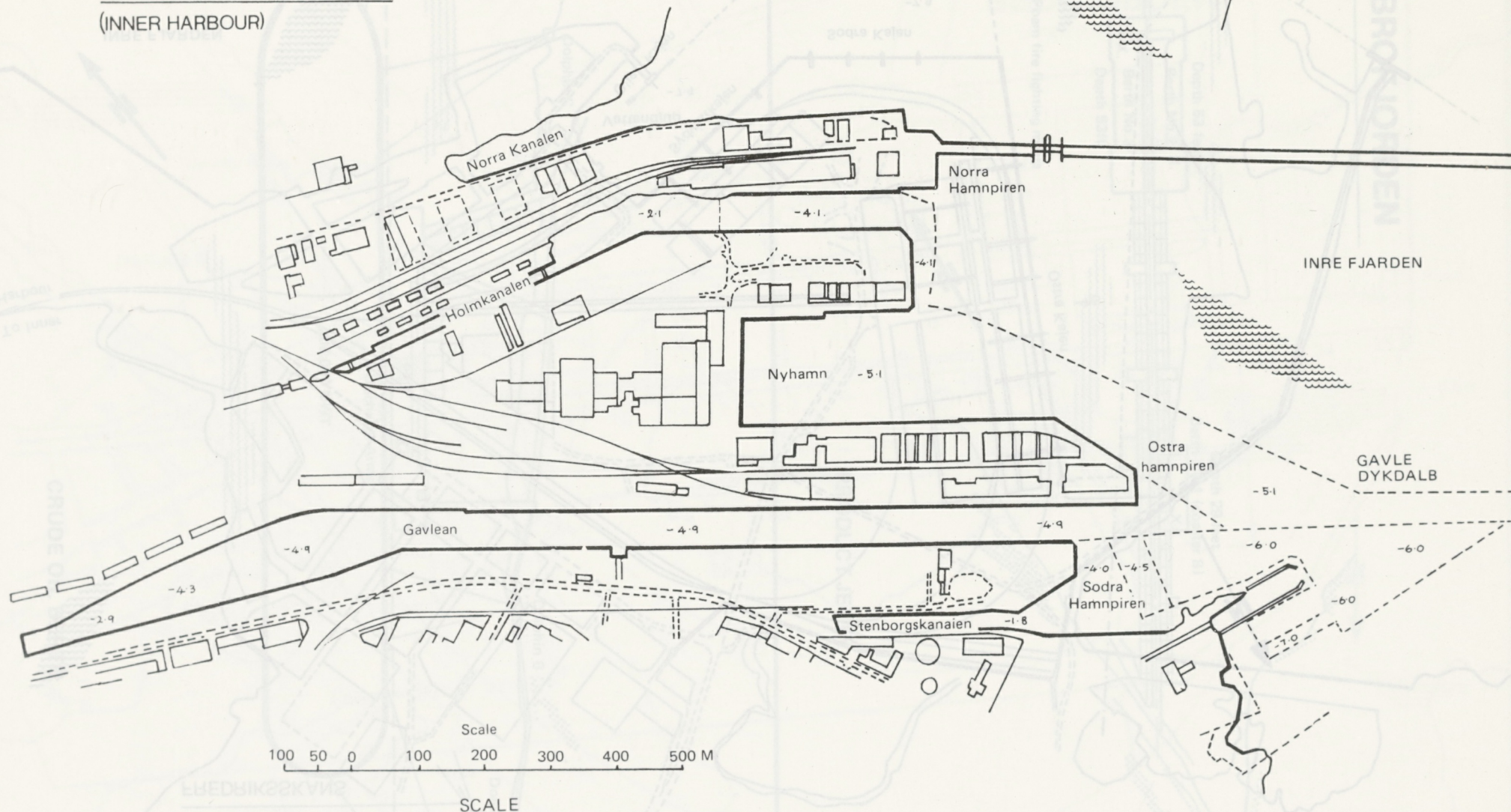


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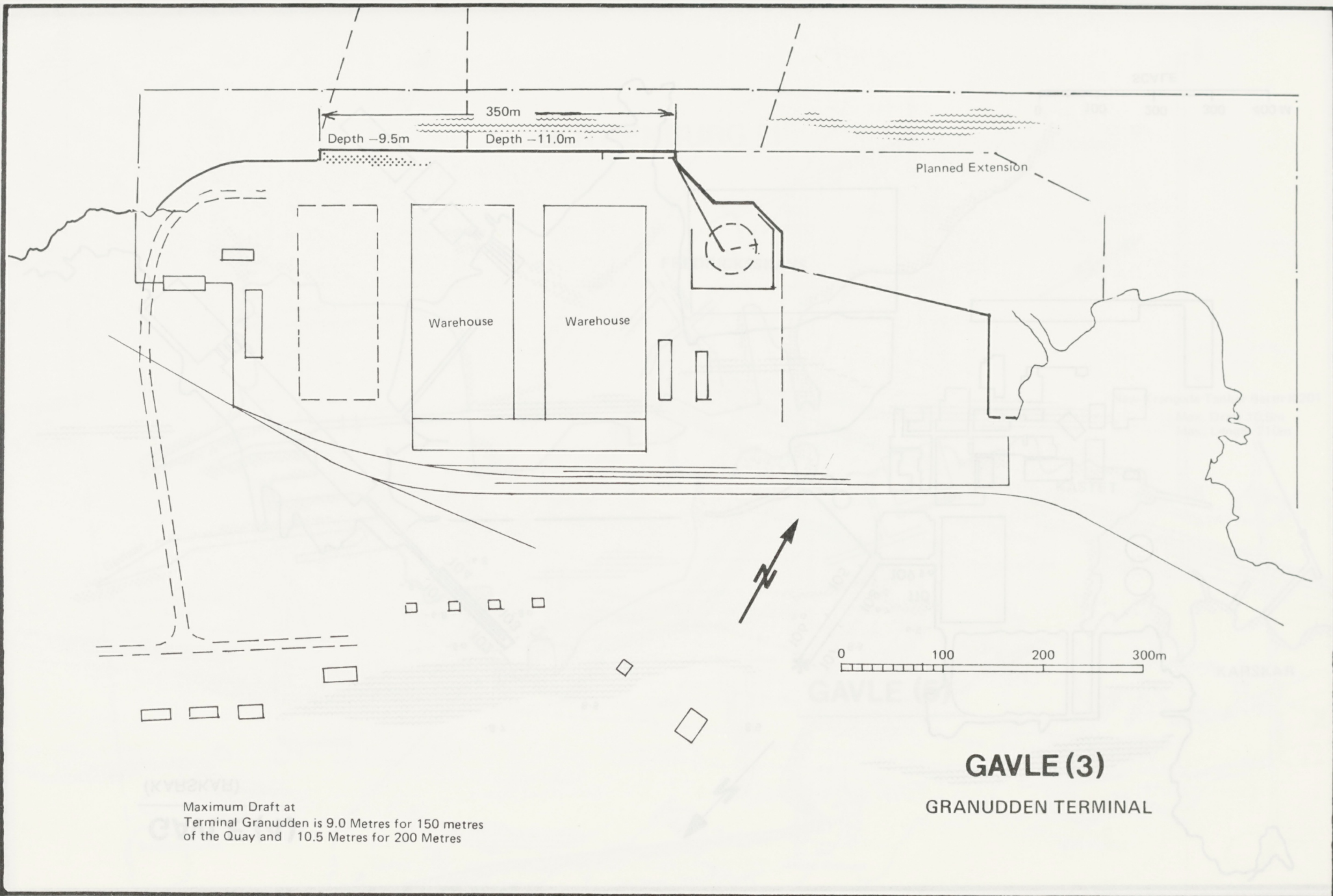


# GAVLE [2]

(INNER HARBOUR)





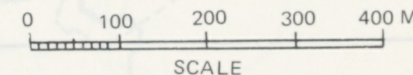
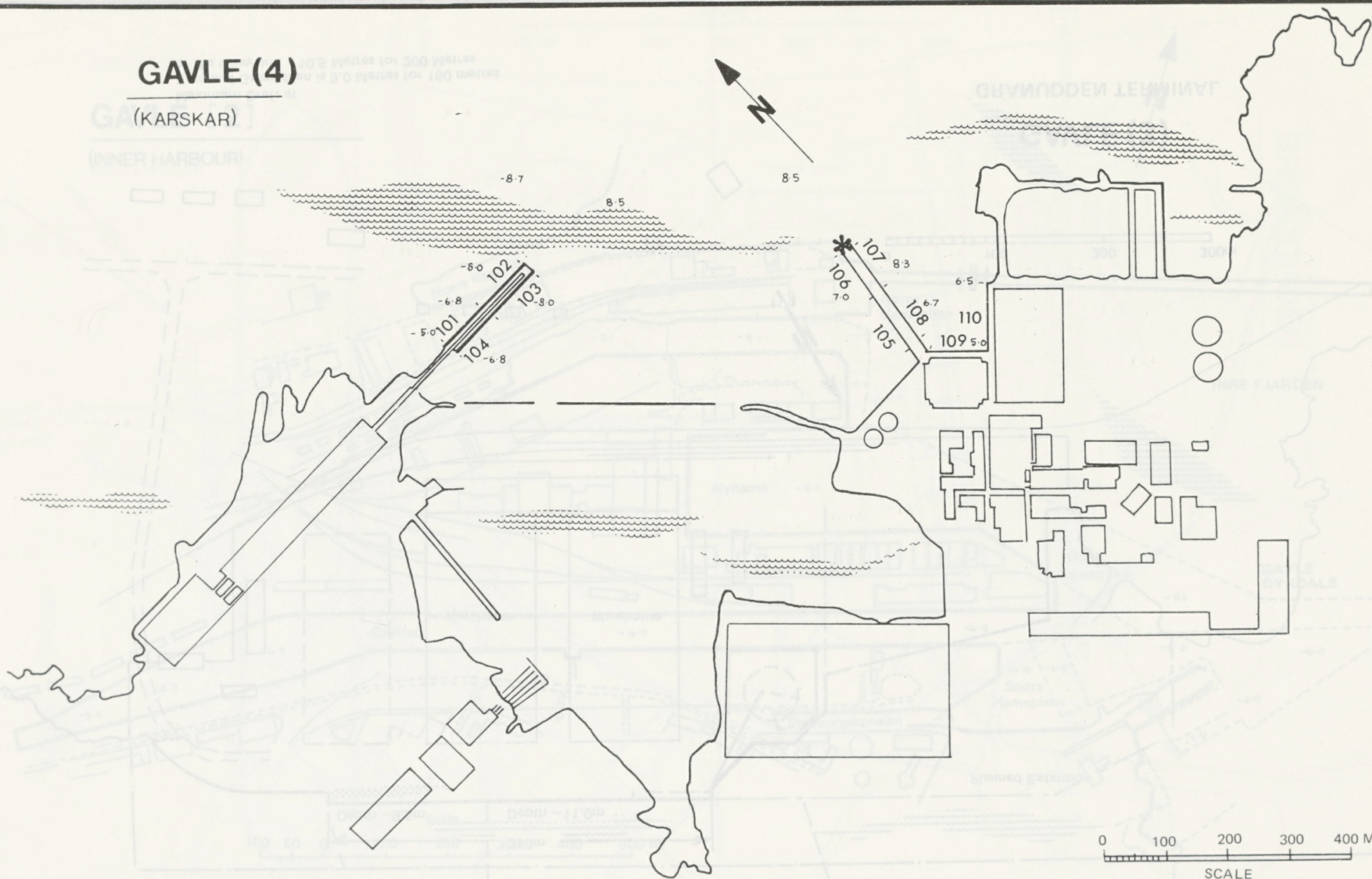


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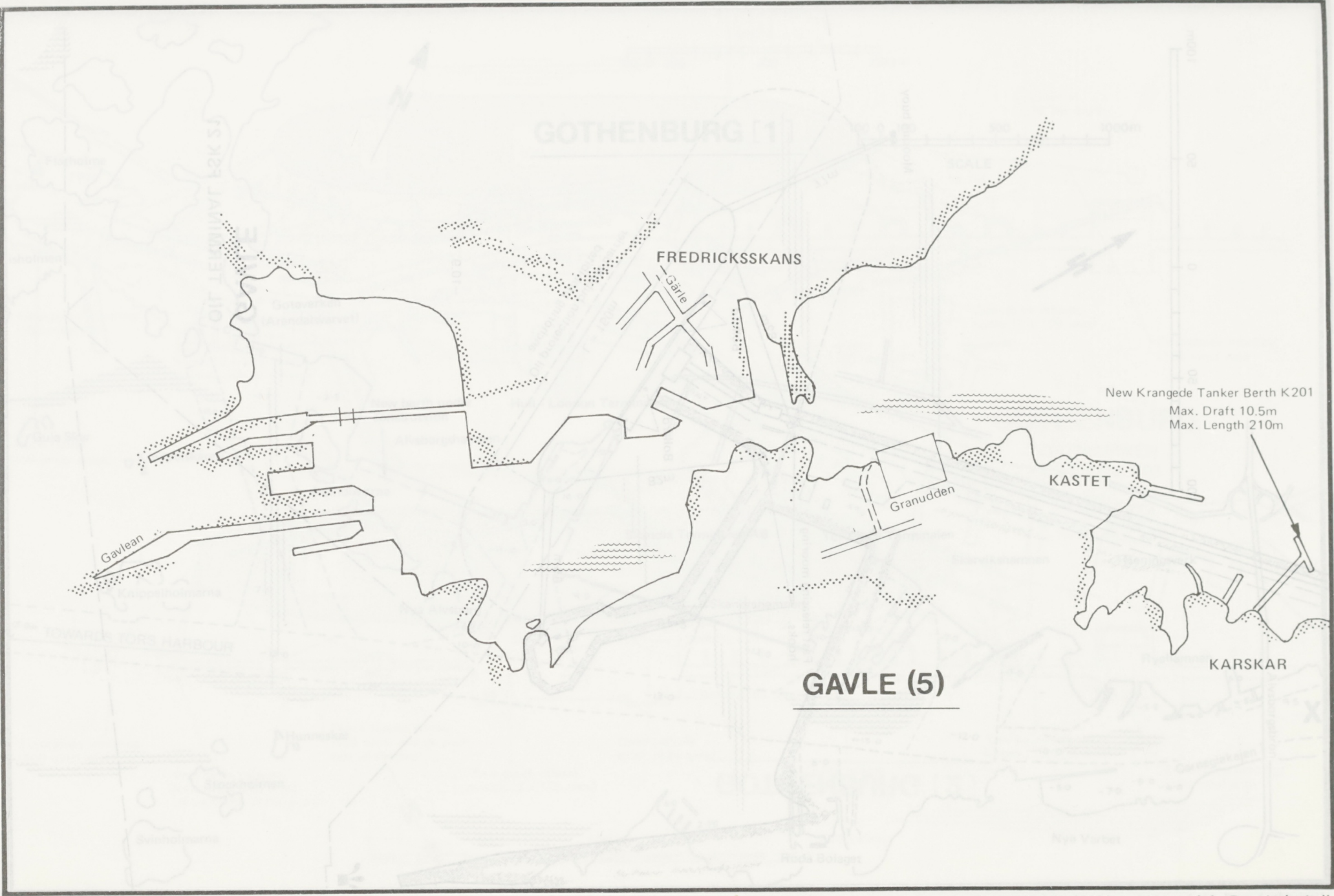


# GAVLE (4)

(KARSKAR)

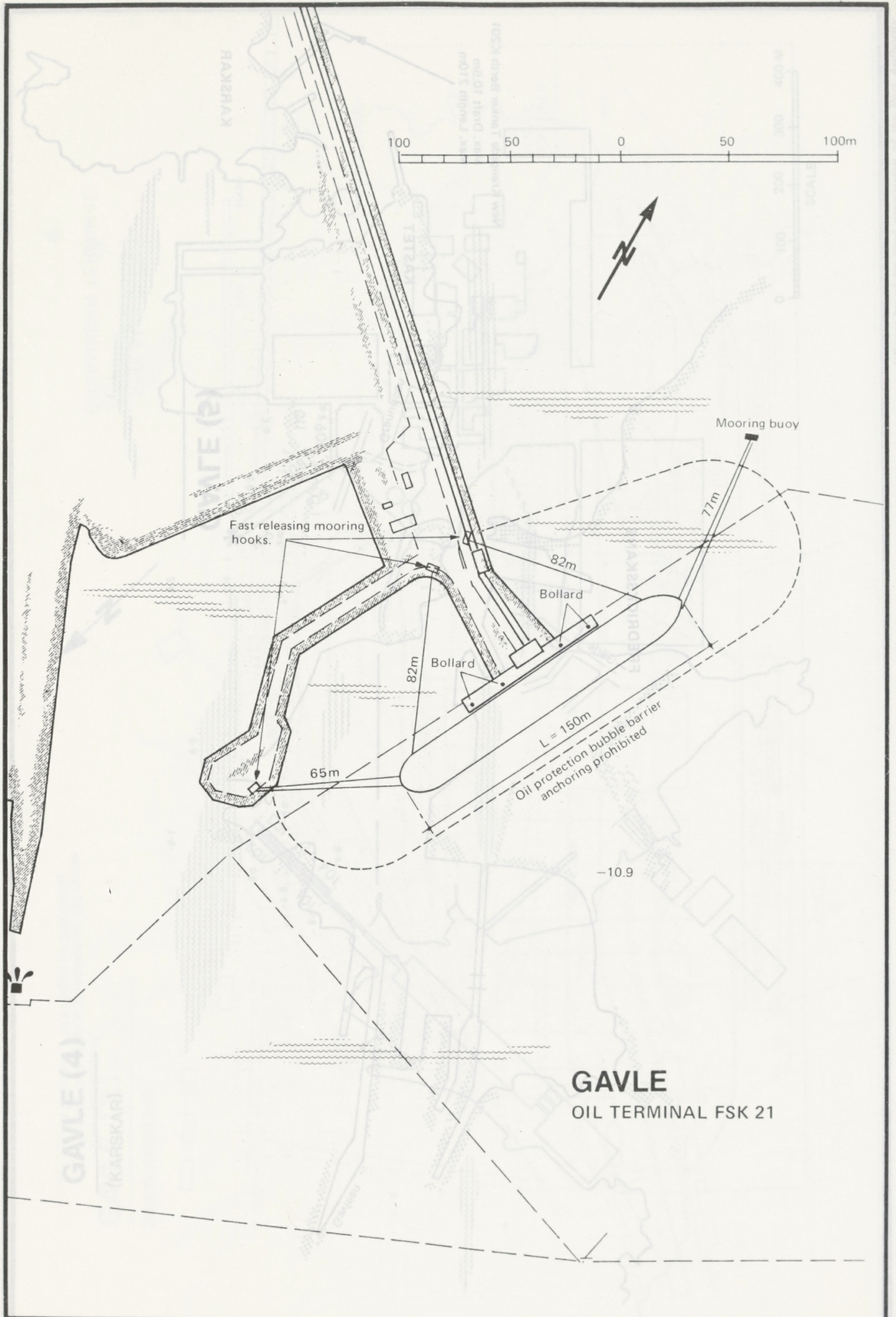






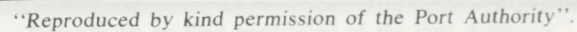
"Reproduced by kind permission of the Port Authority".





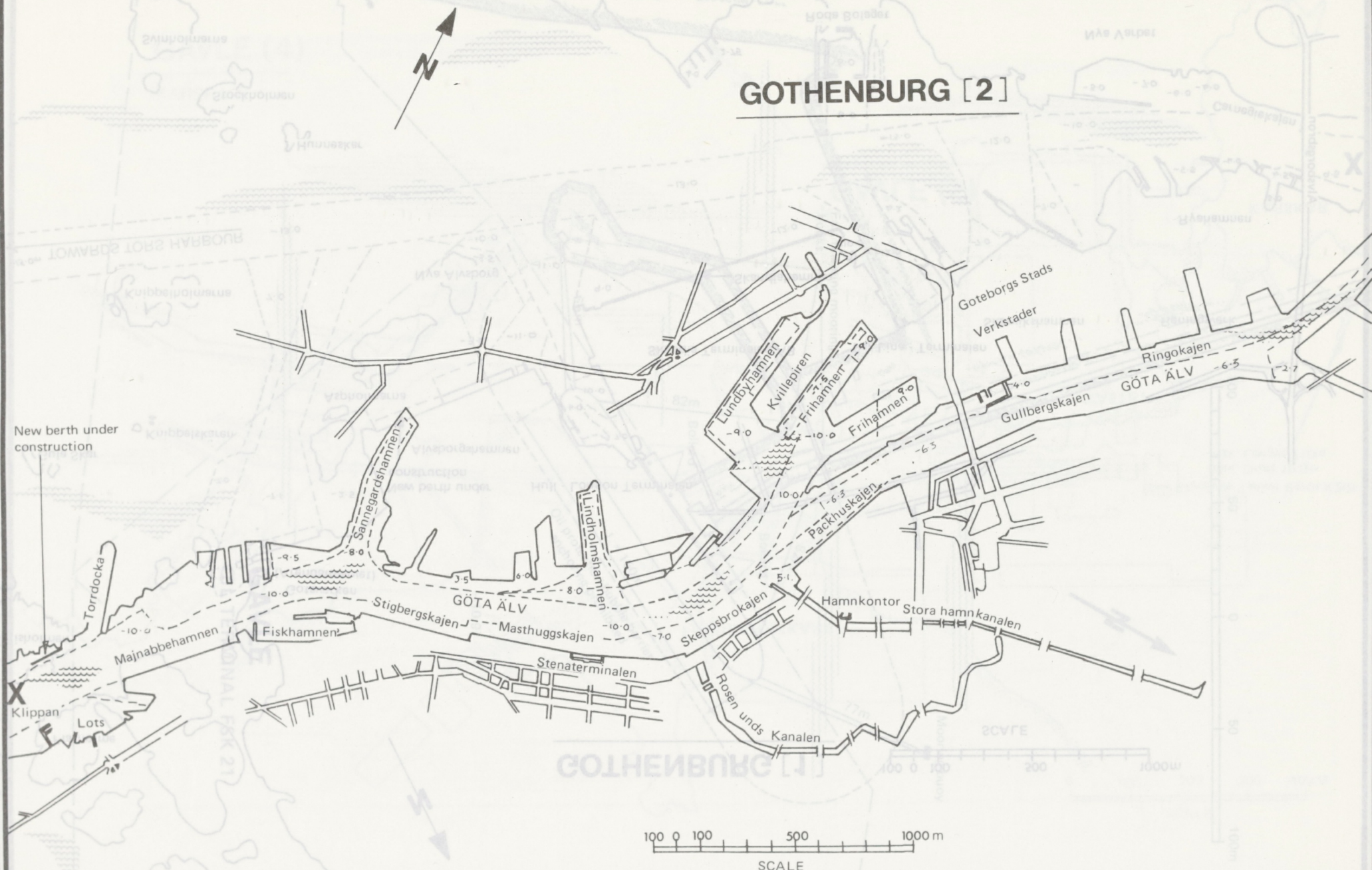
**GAVLE**  
OIL TERMINAL FSK 21





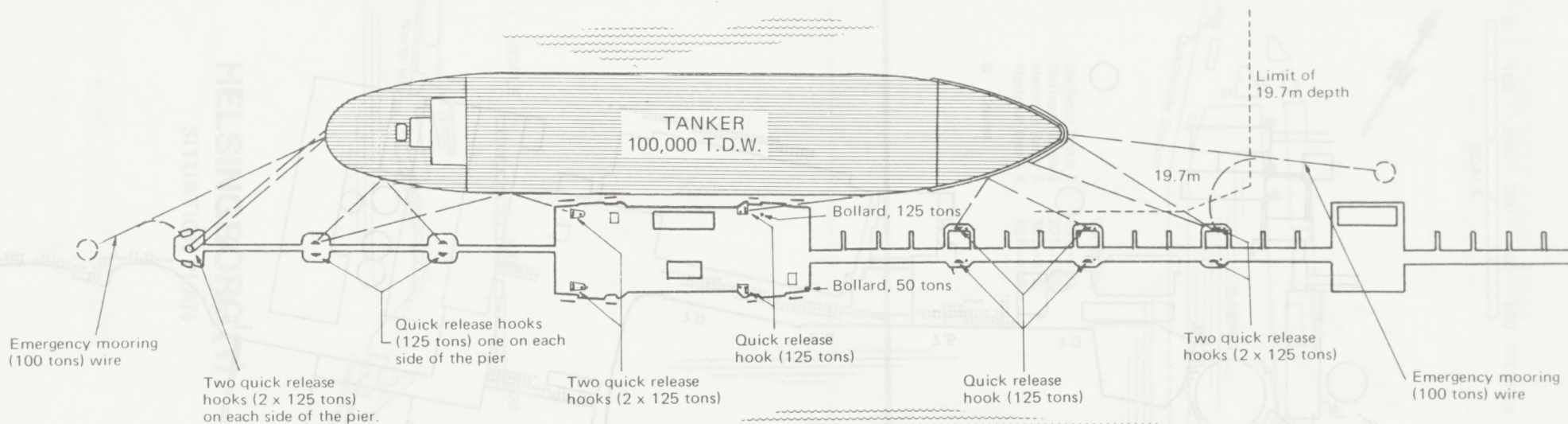


# GOTHENBURG [2]



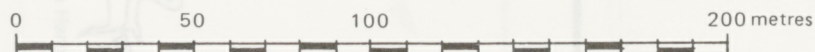
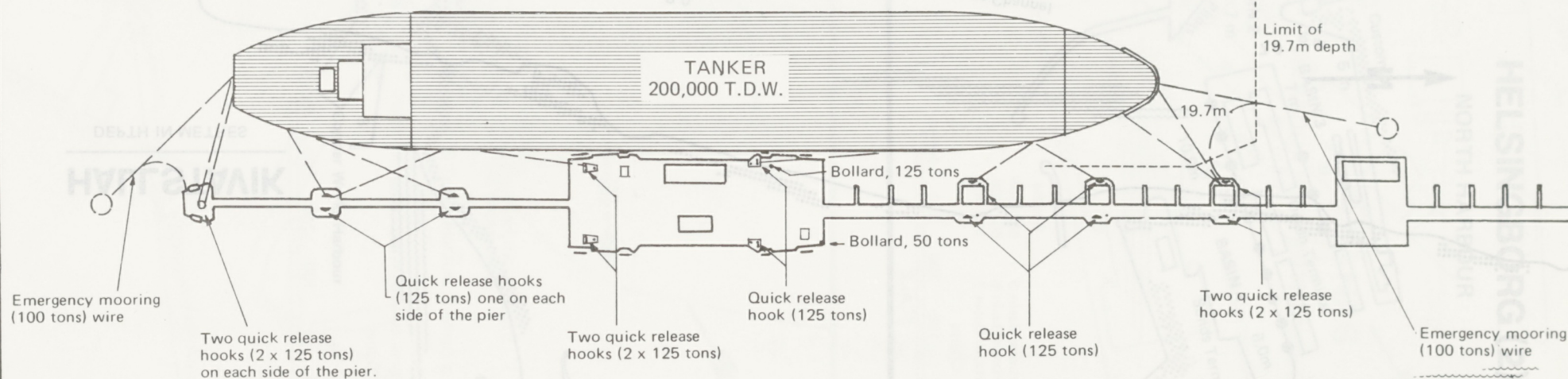
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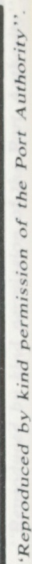


## GOTHENBURG

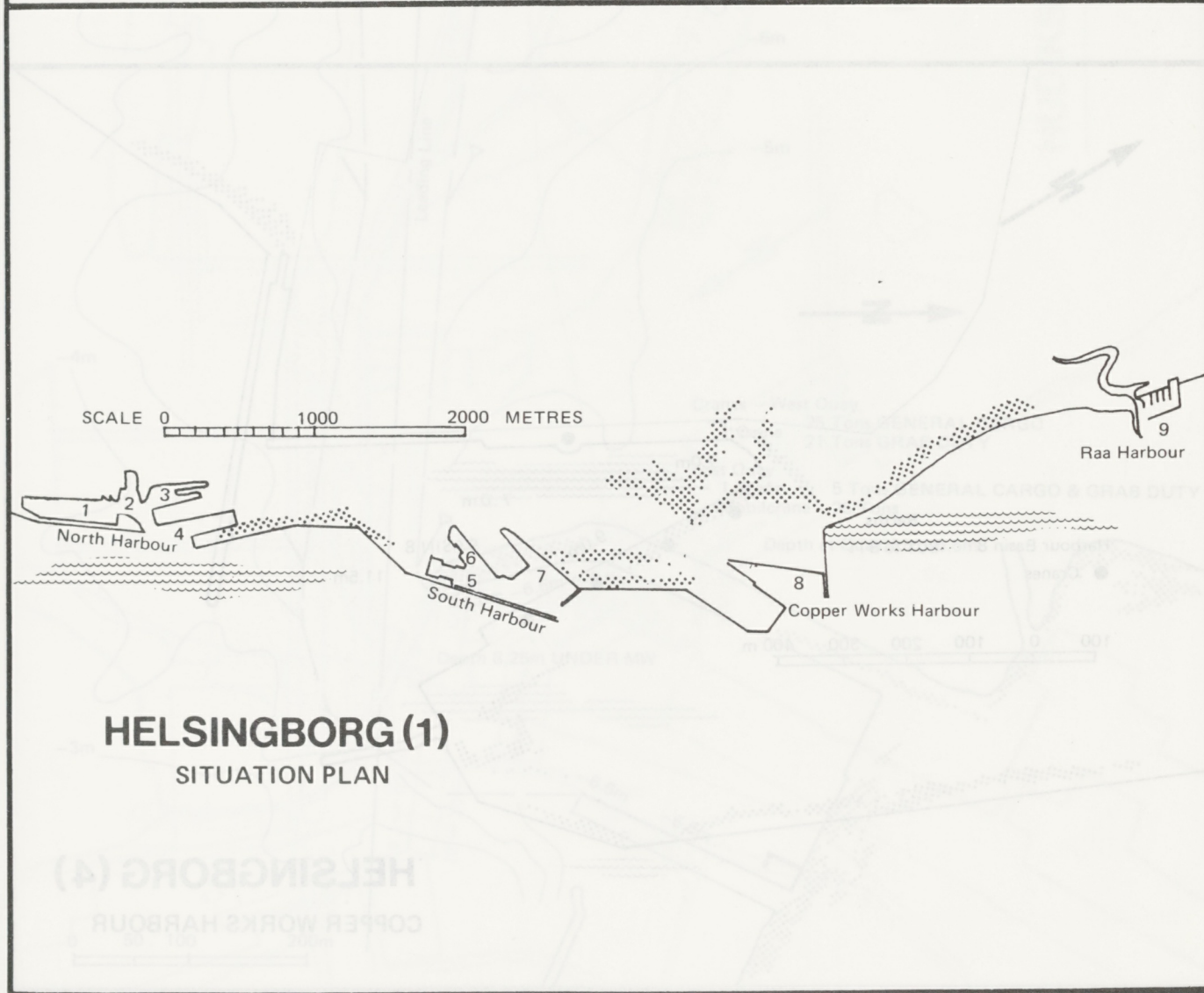
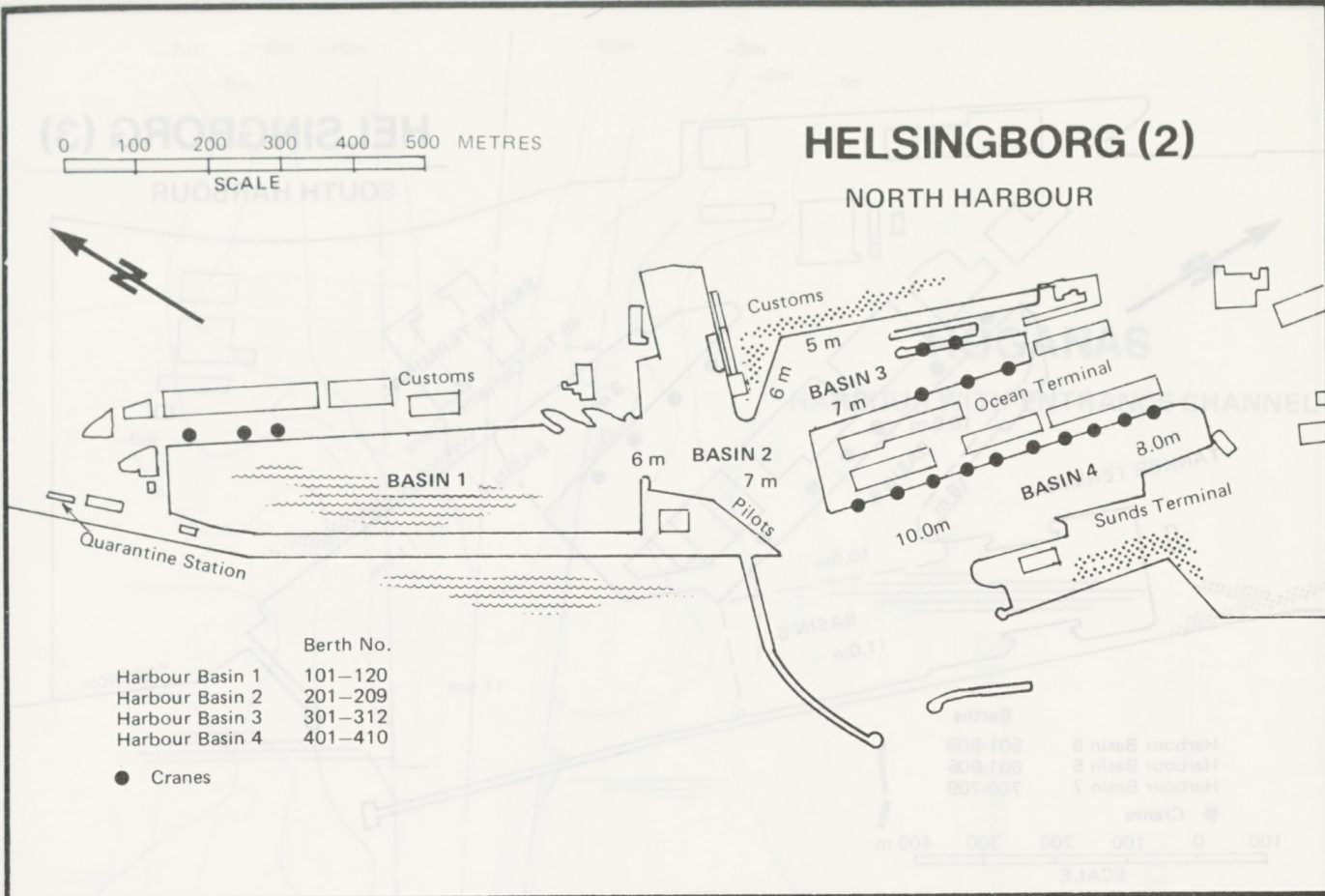
TORSHAMNEN  
BERTH No. 801







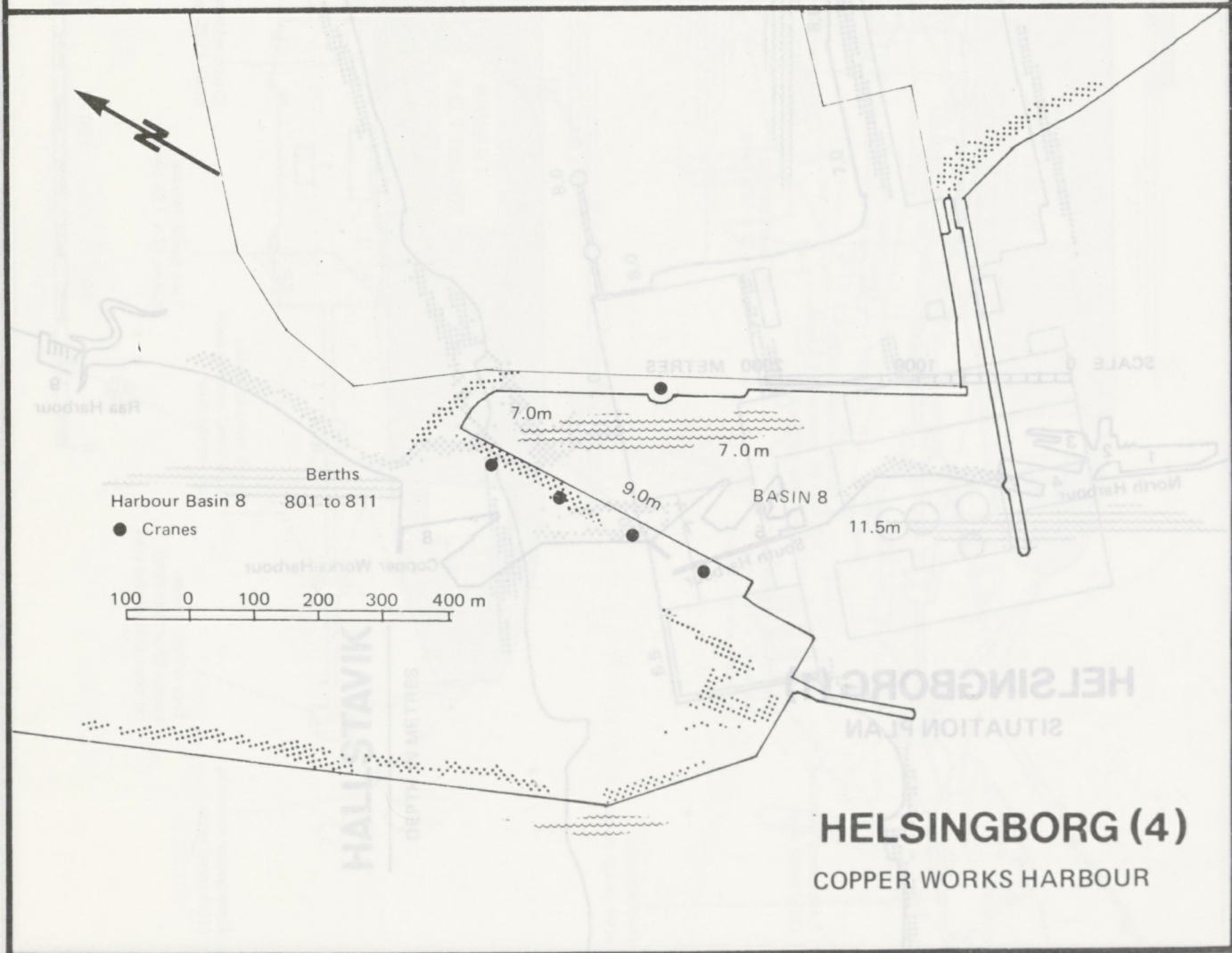
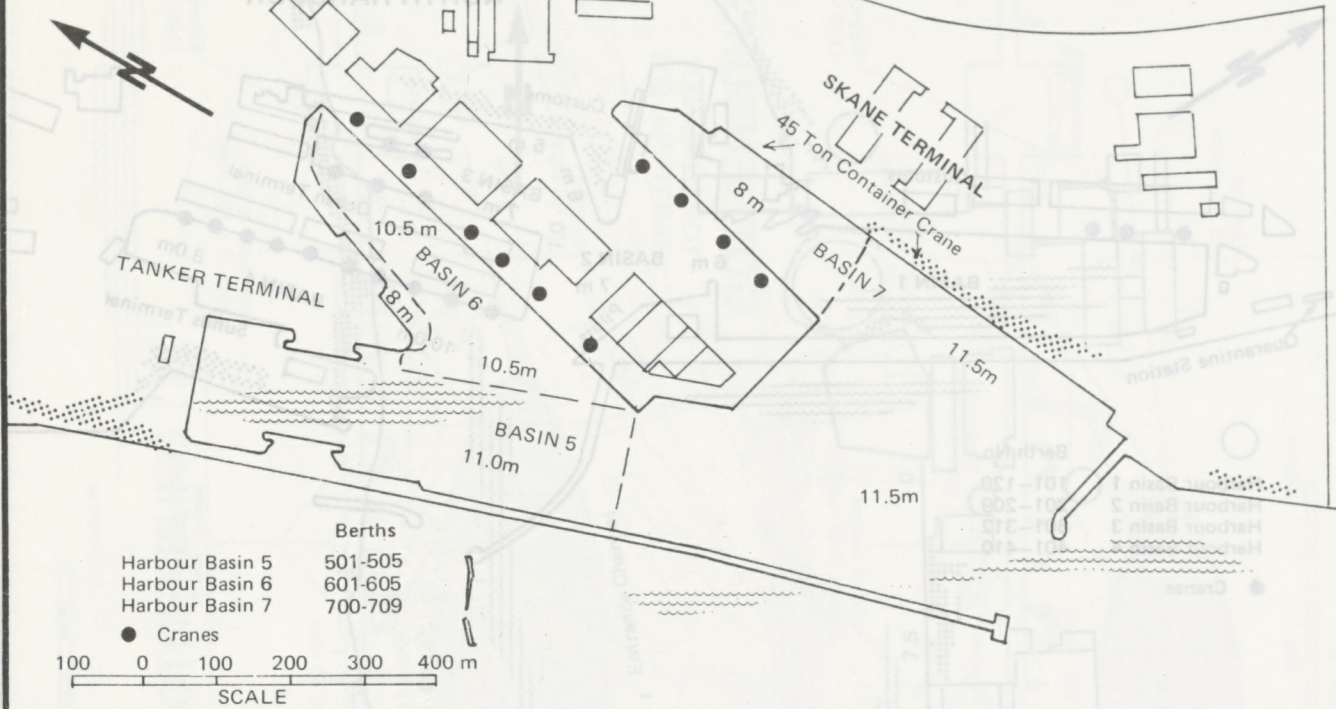






# HELSINGBORG (3)

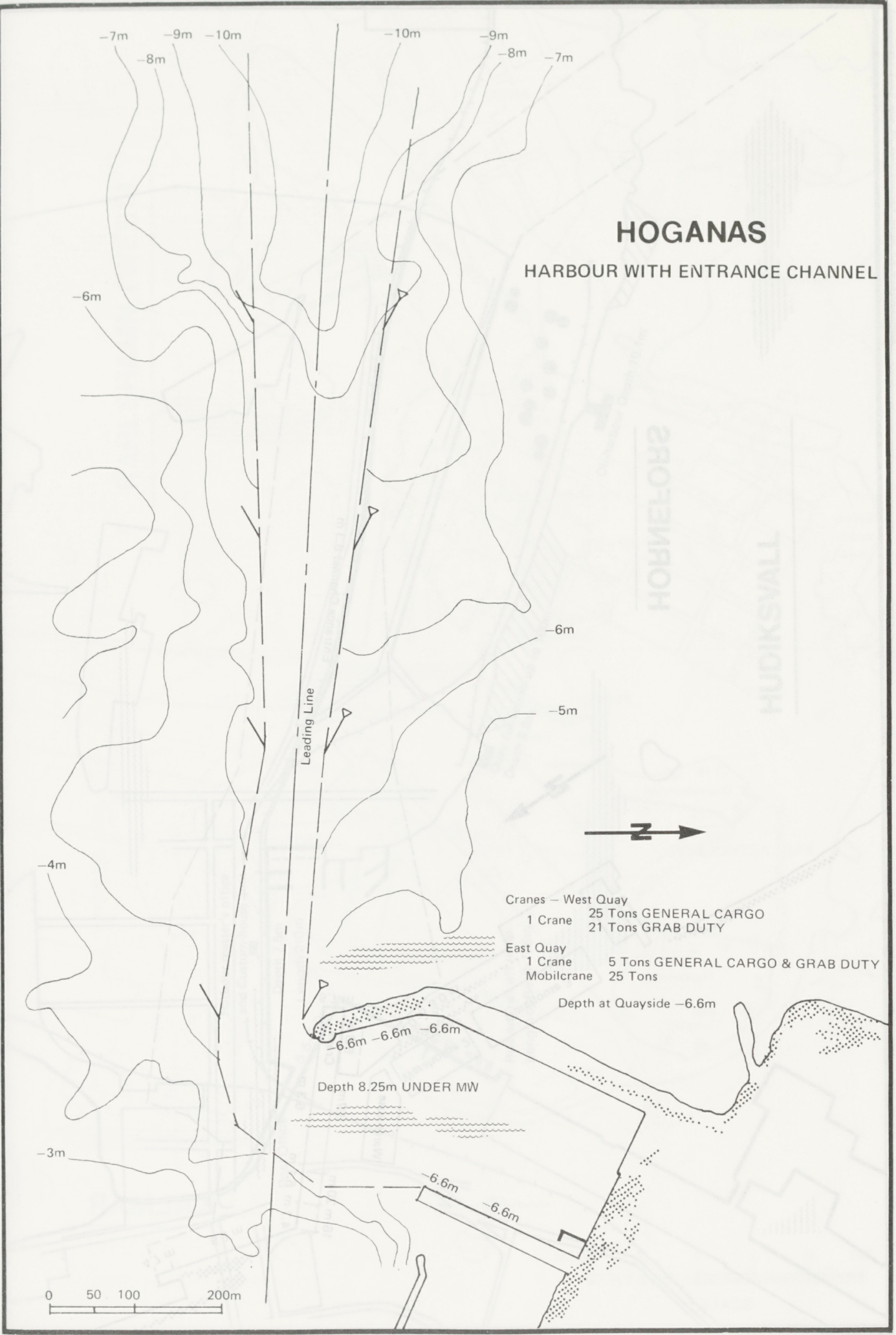
SOUTH HARBOUR



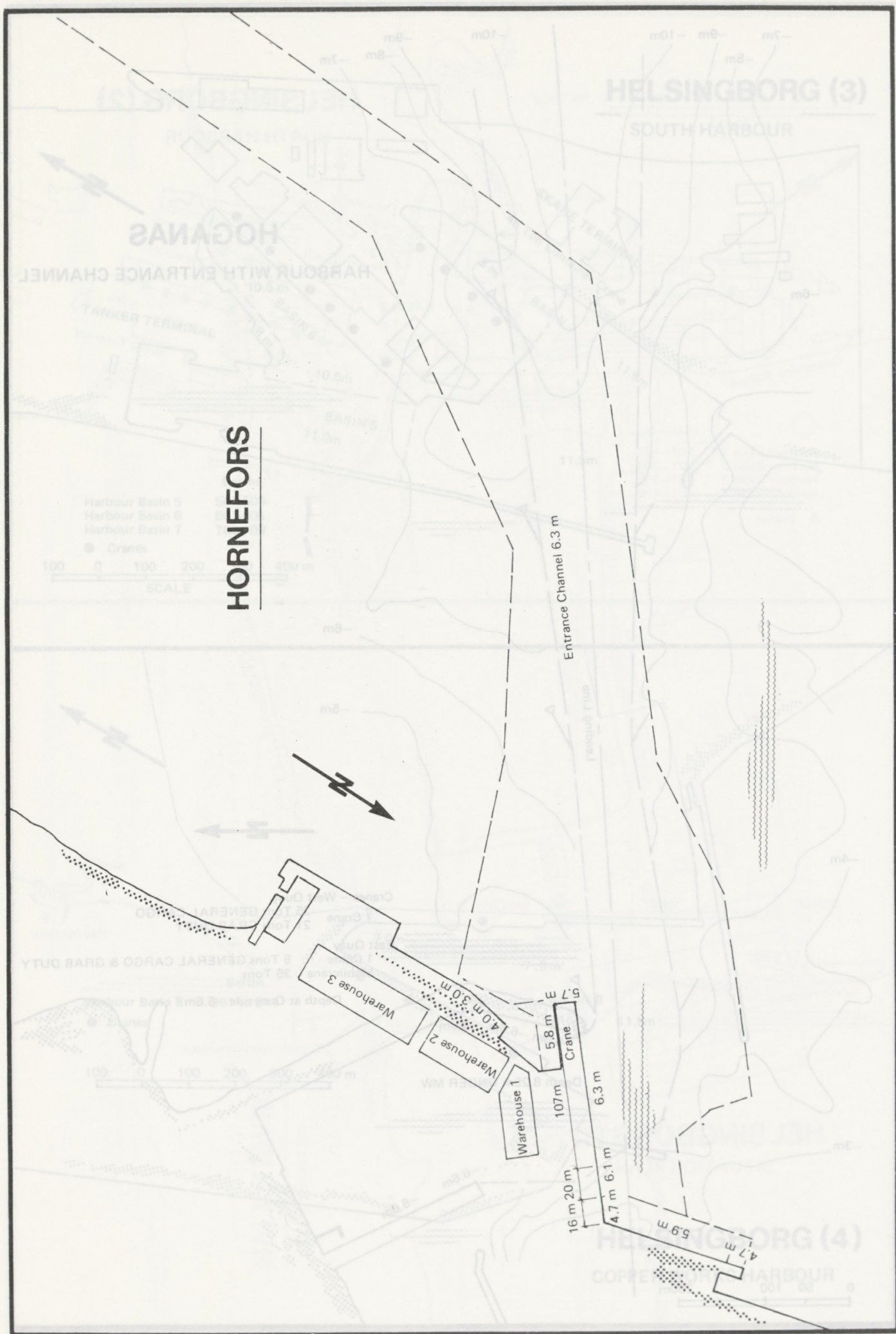
# HELSINGBORG (4)

COPPER WORKS HARBOUR

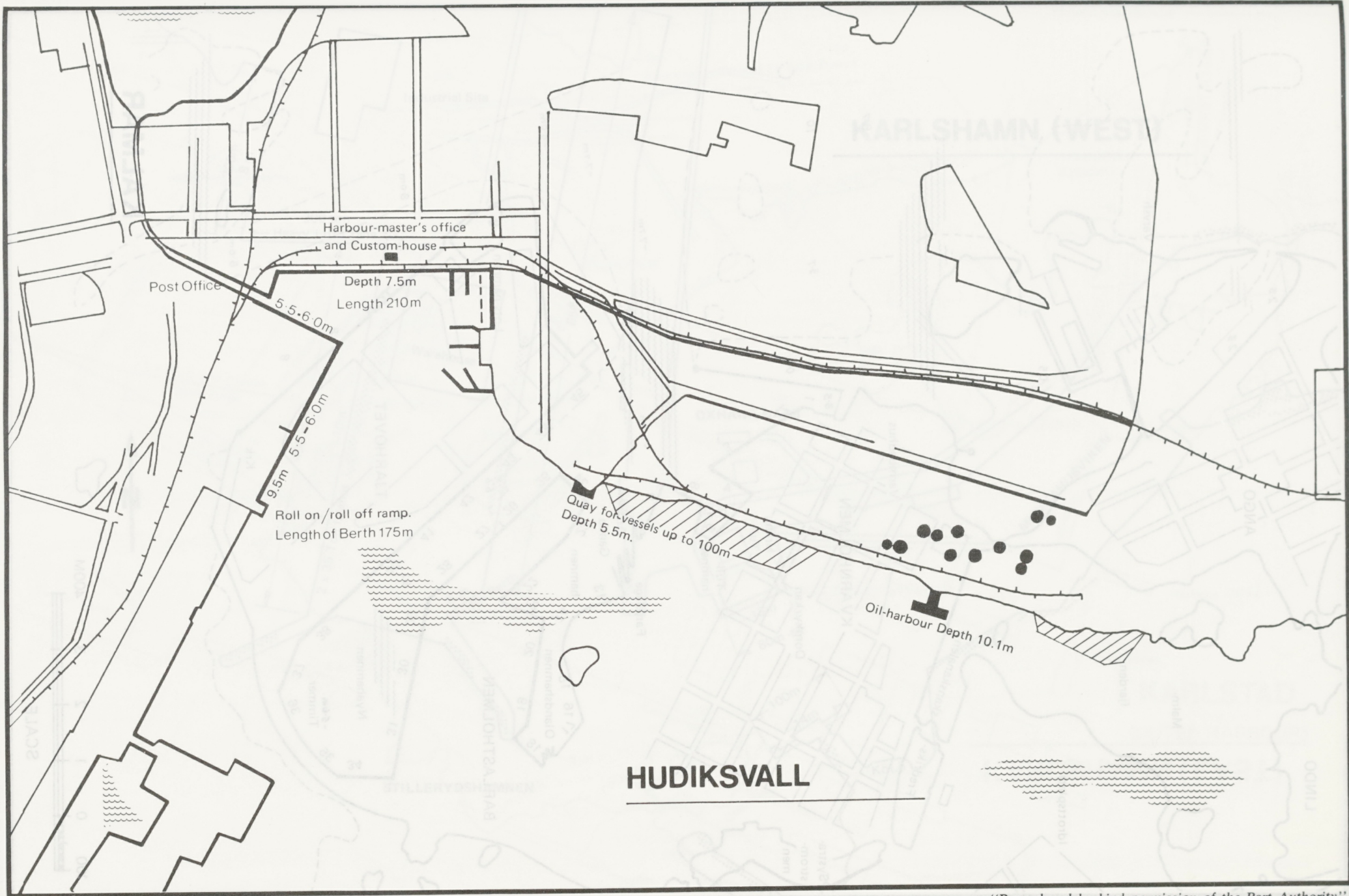








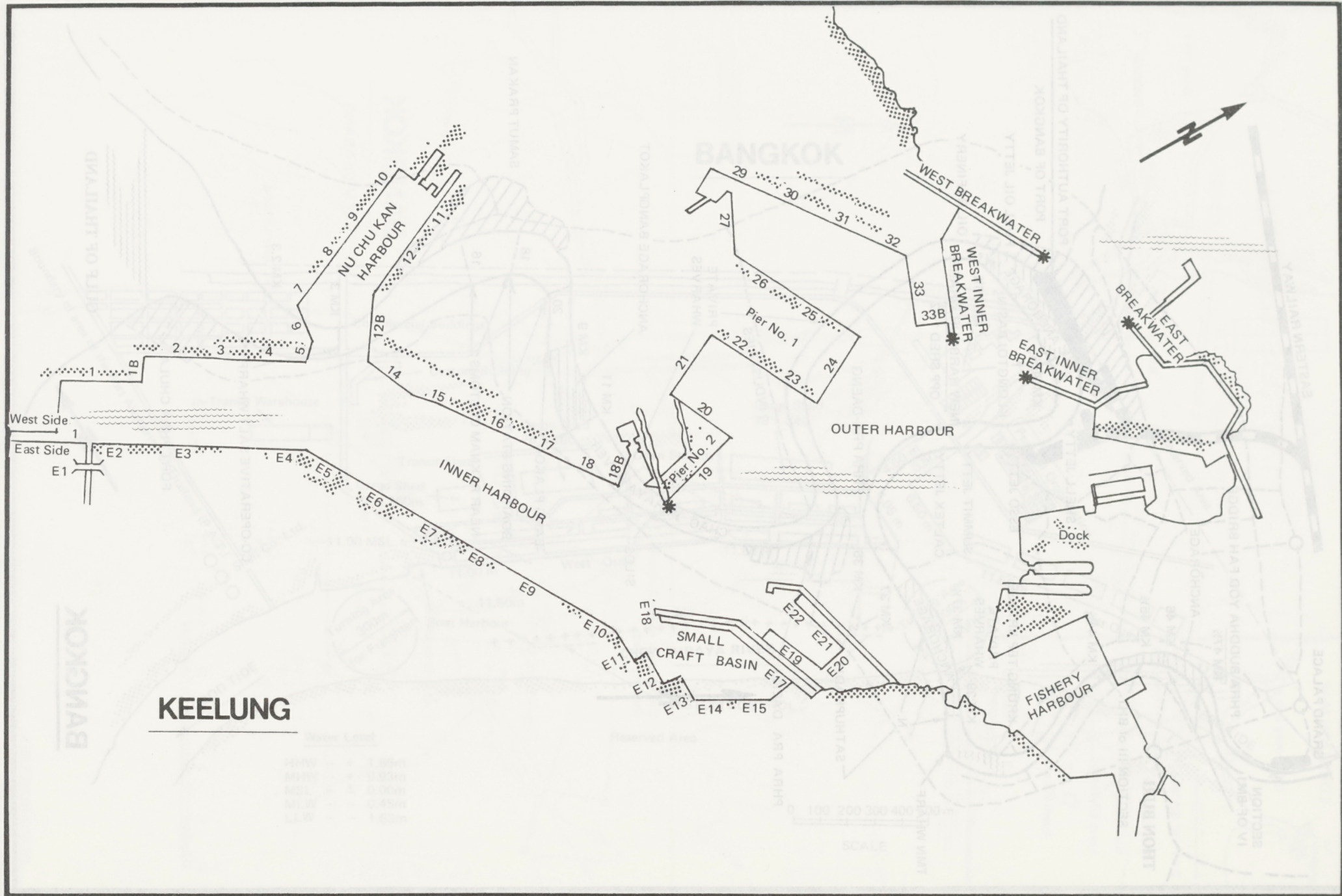




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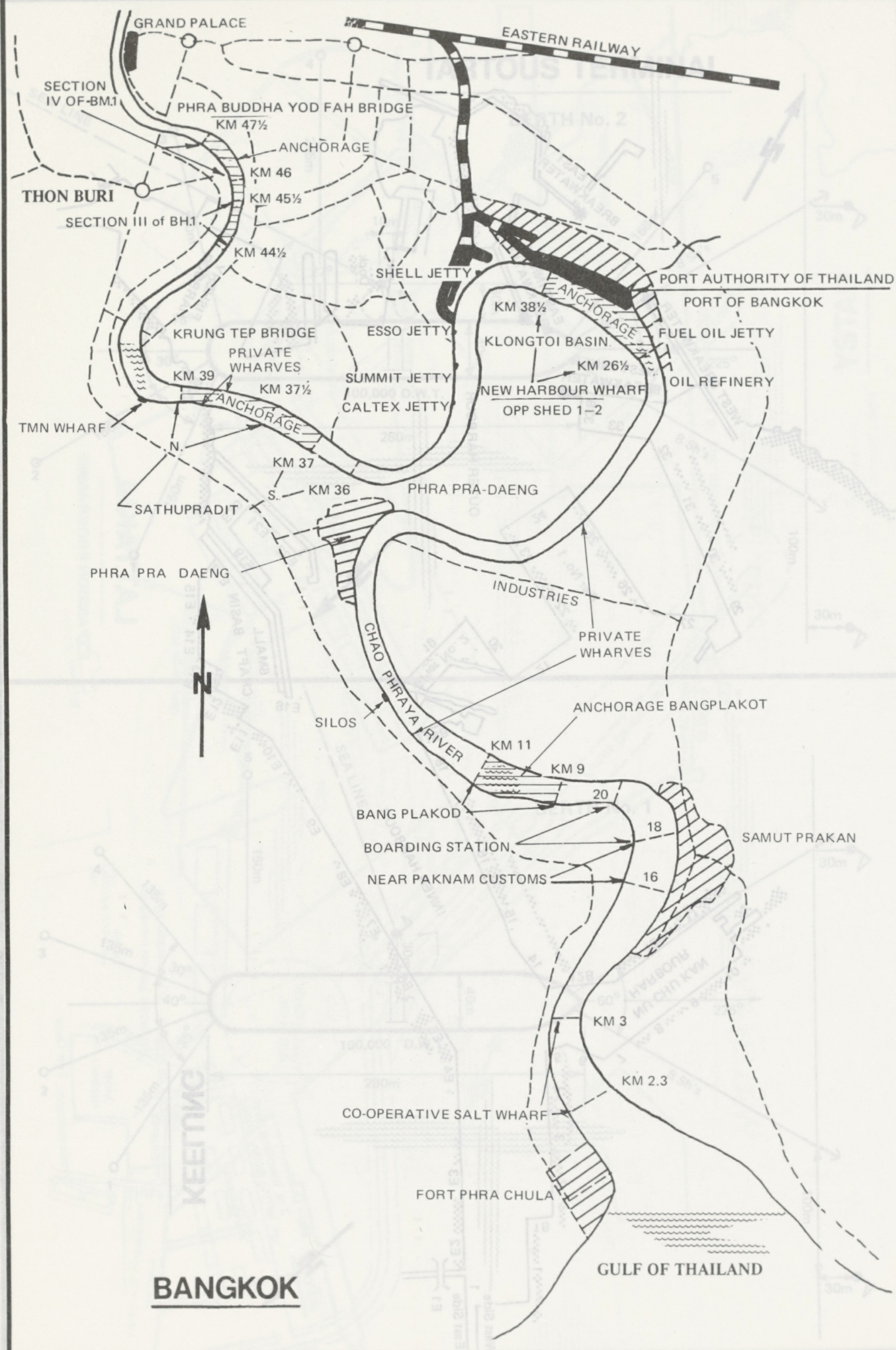


# KEELUNG



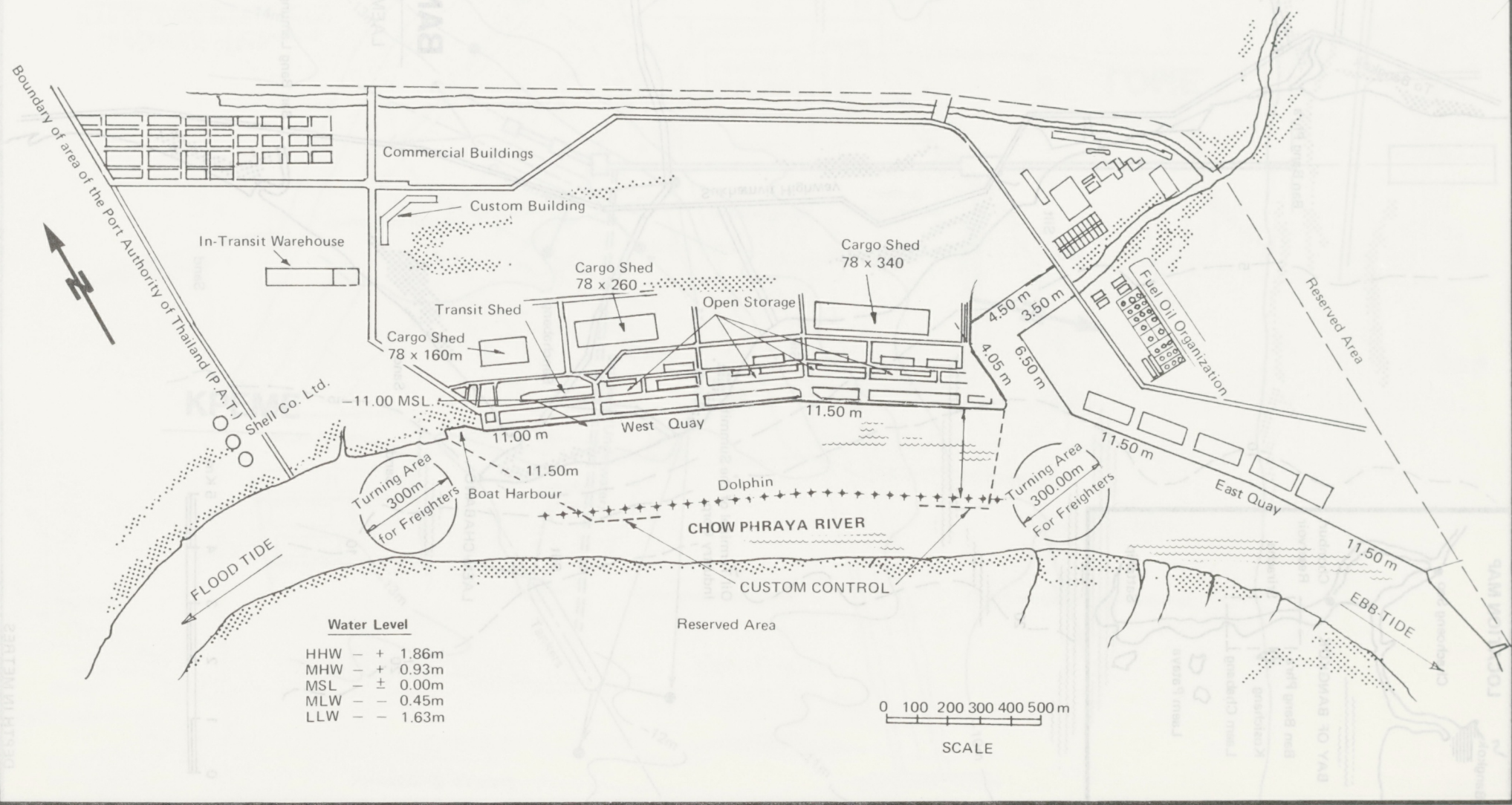
"Reproduced by kind permission of the Port Authority".





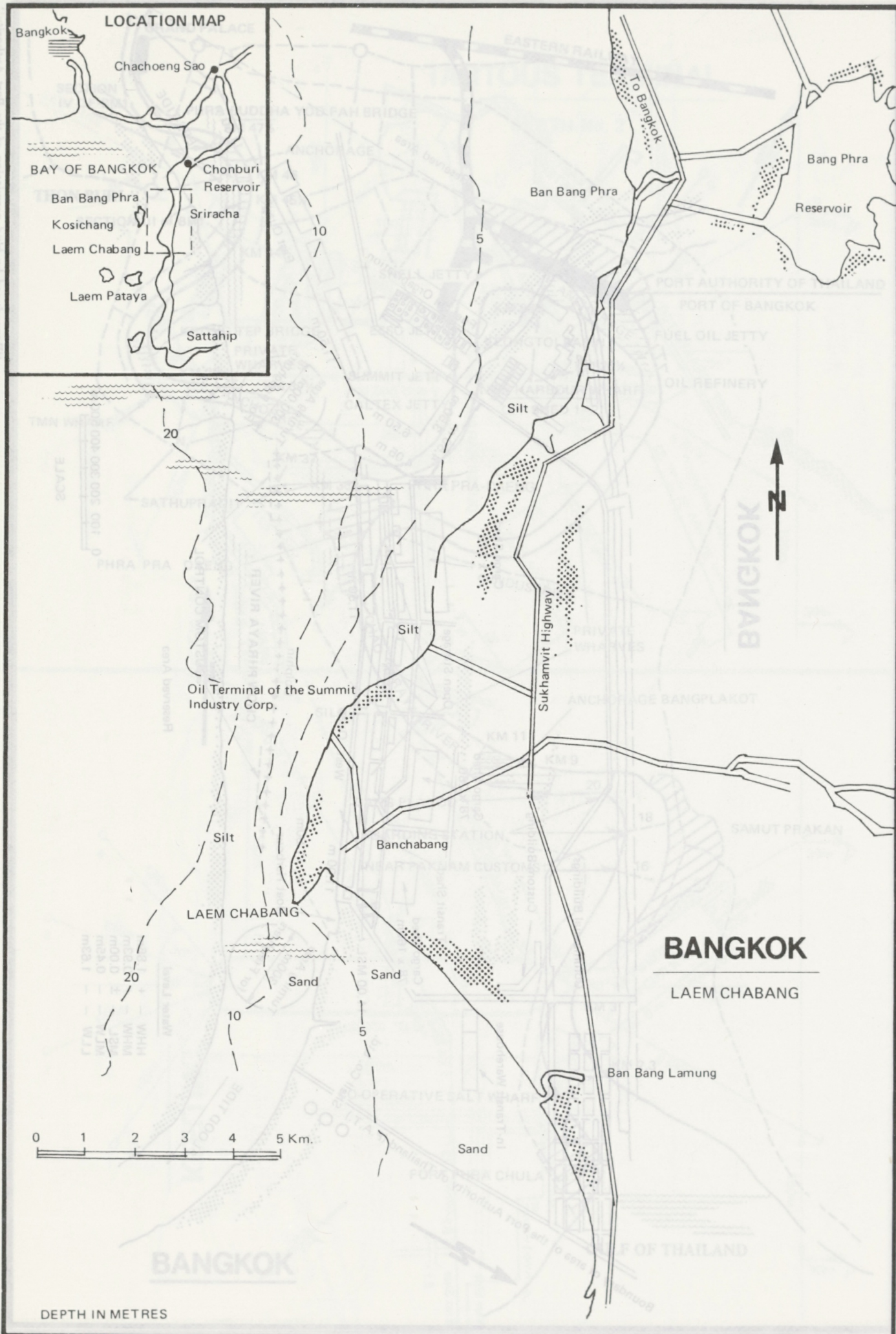


# BANGKOK

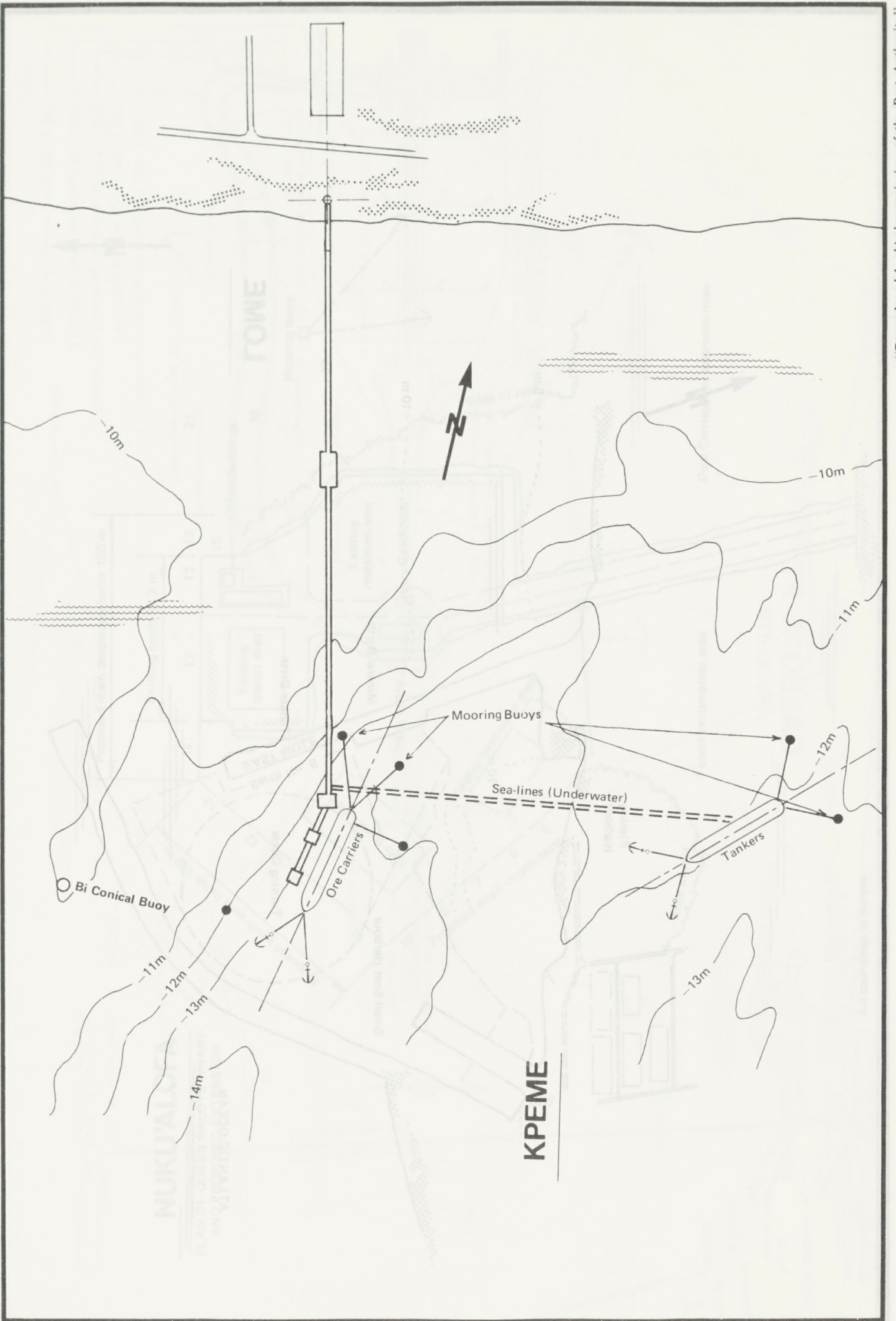


"Reproduced by kind permission of the Port Authority".



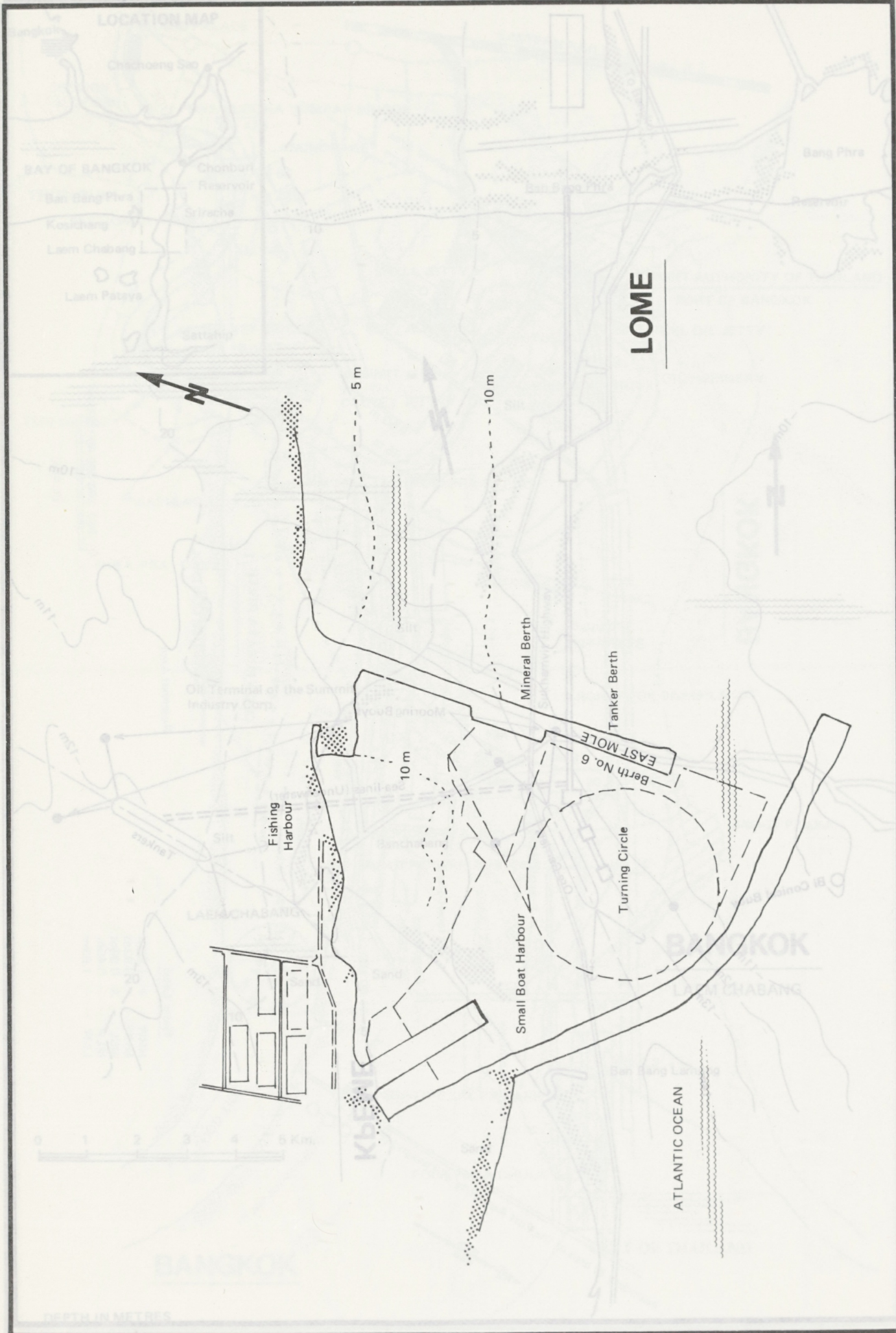






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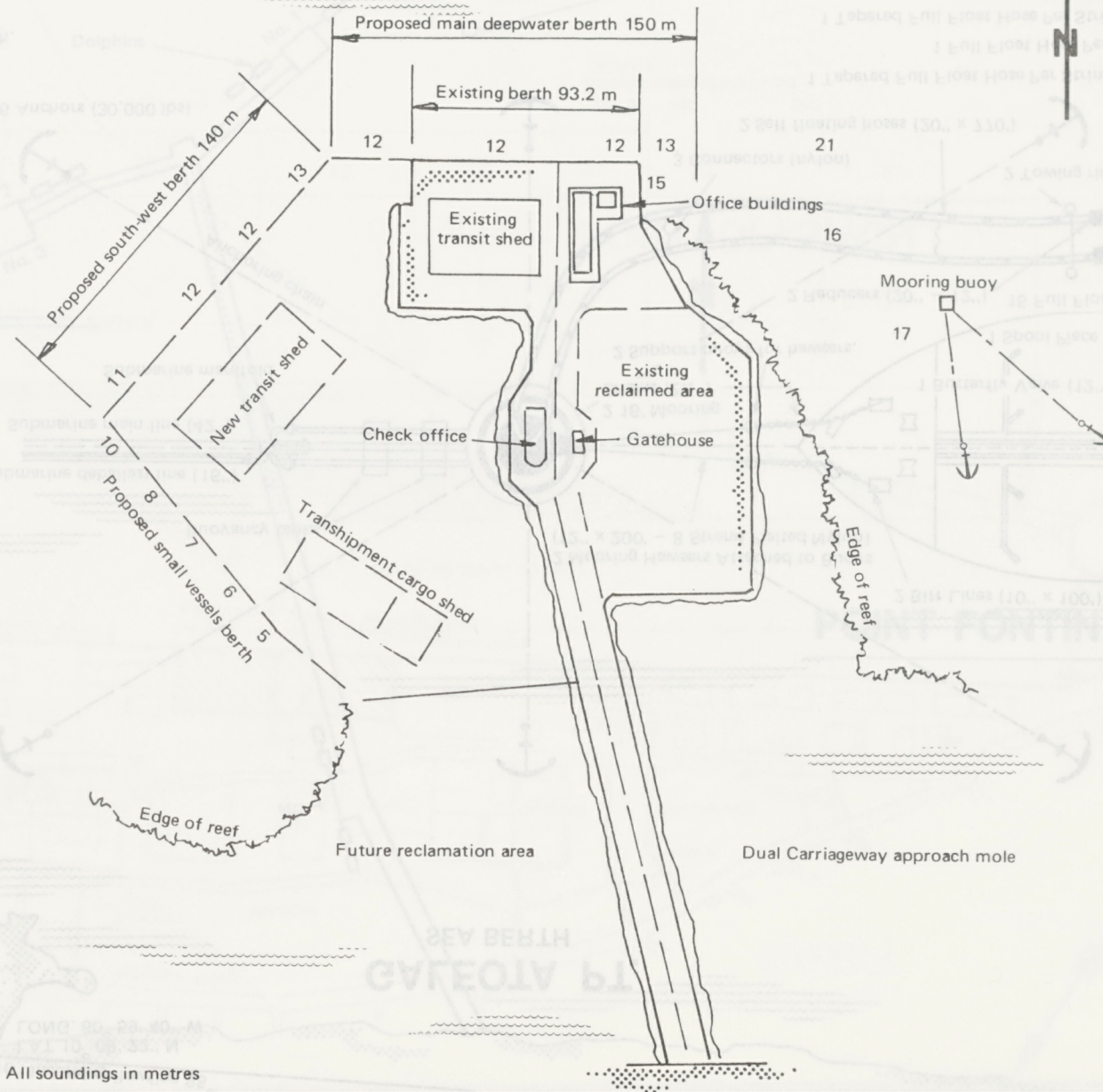


"Reproduced by kind permission of the Port Authority".



# NUKU'ALOFA

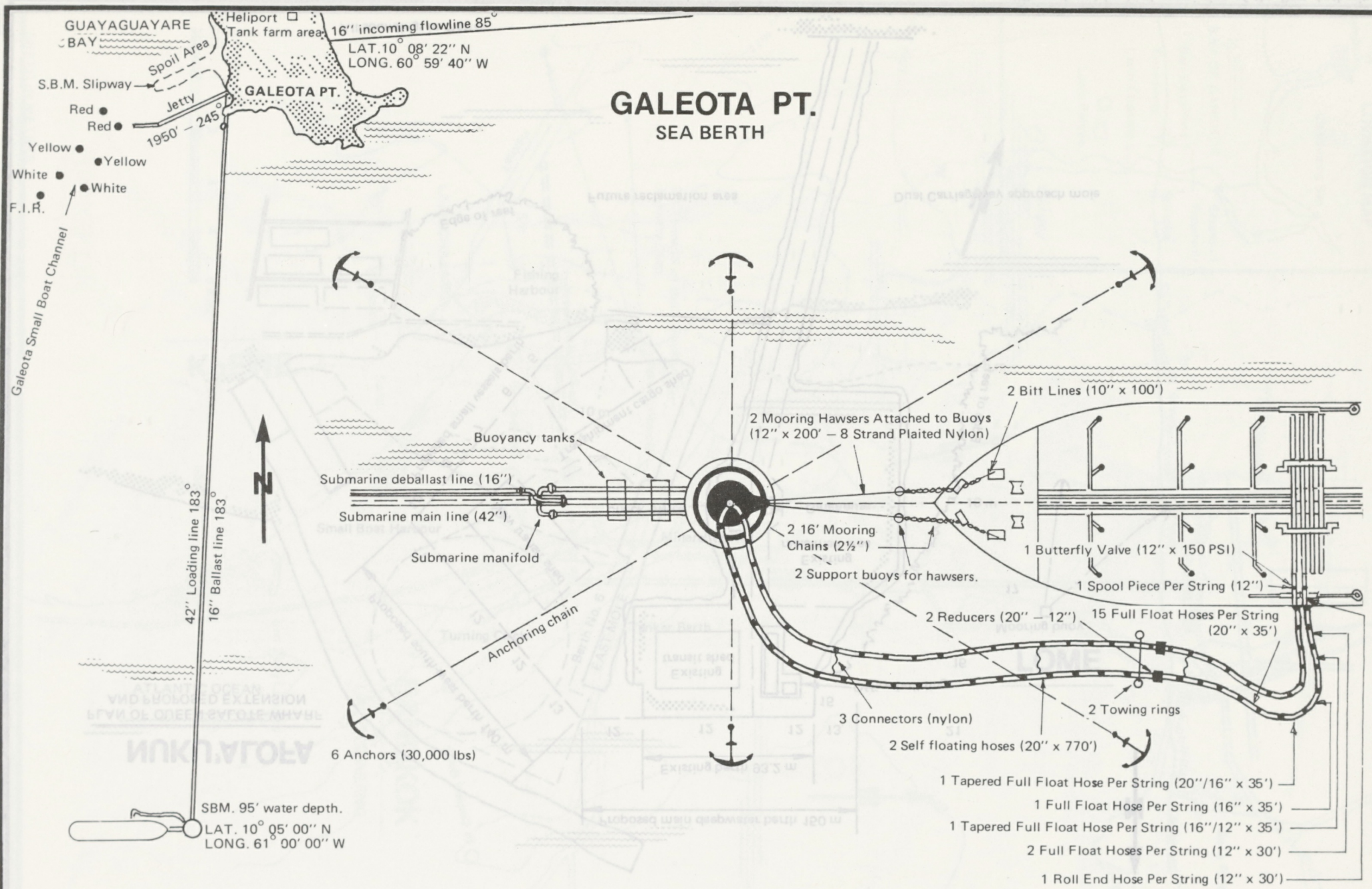
PLAN OF QUEEN SALOTE WHARF  
AND PROPOSED EXTENSION



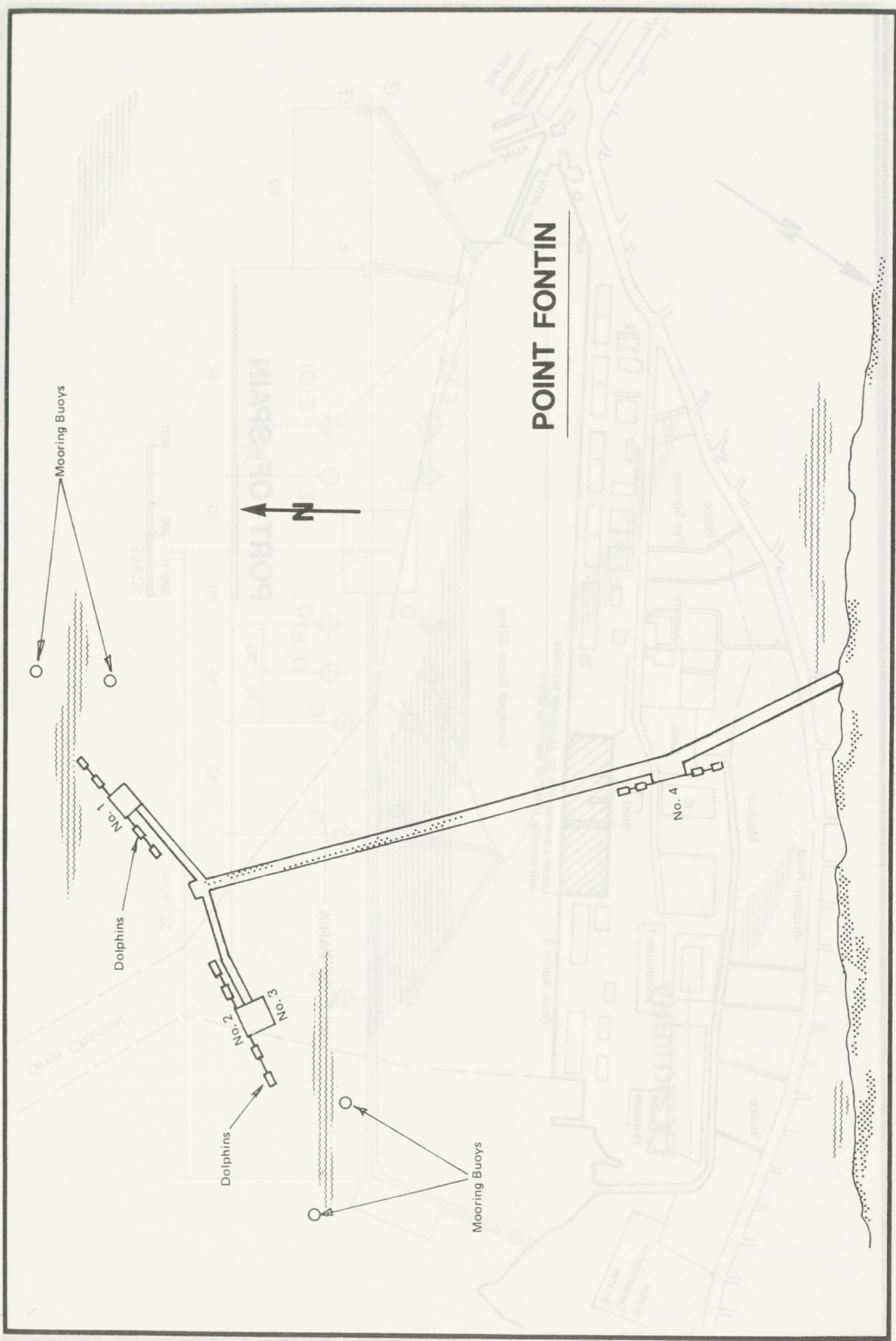
All soundings in metres

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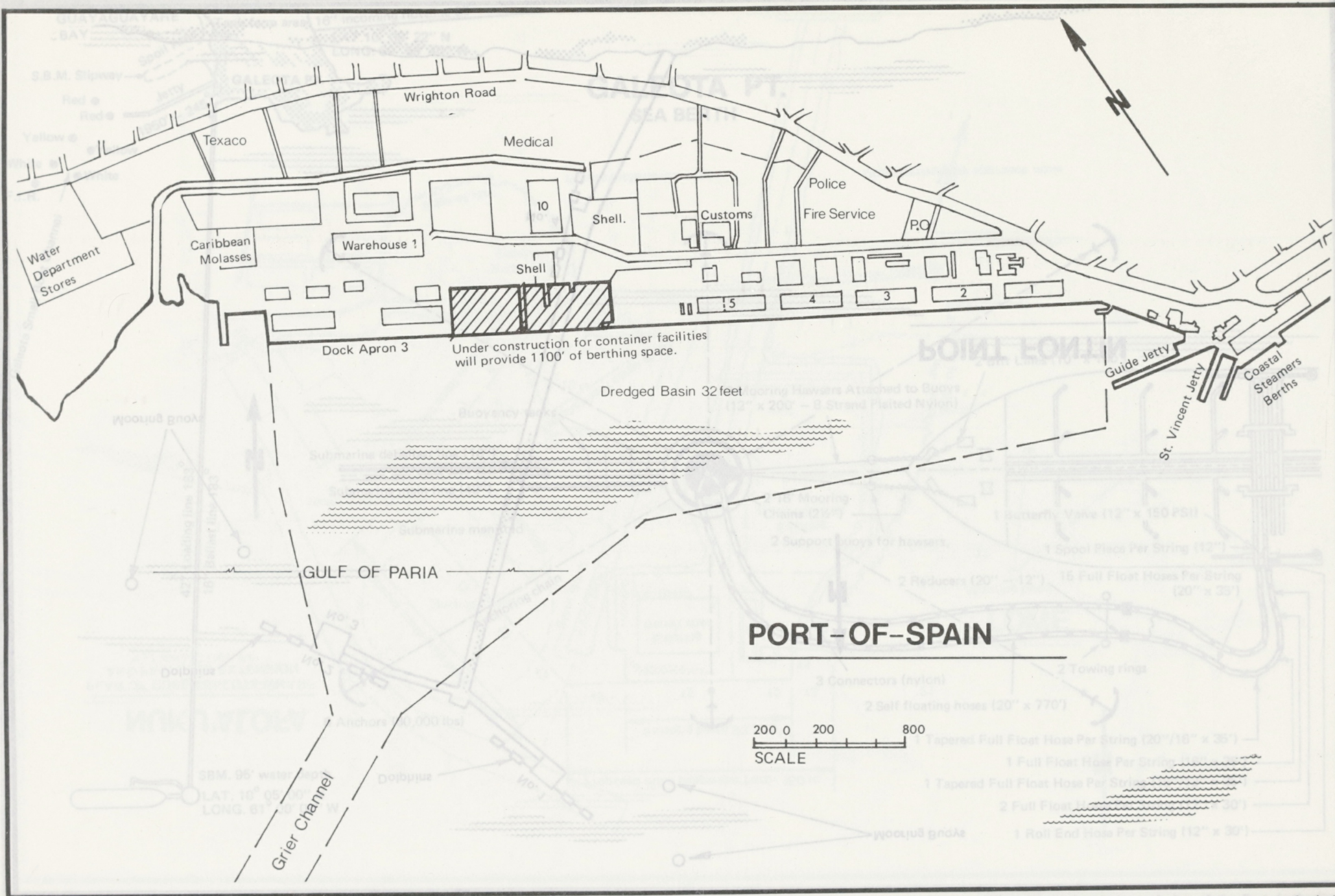




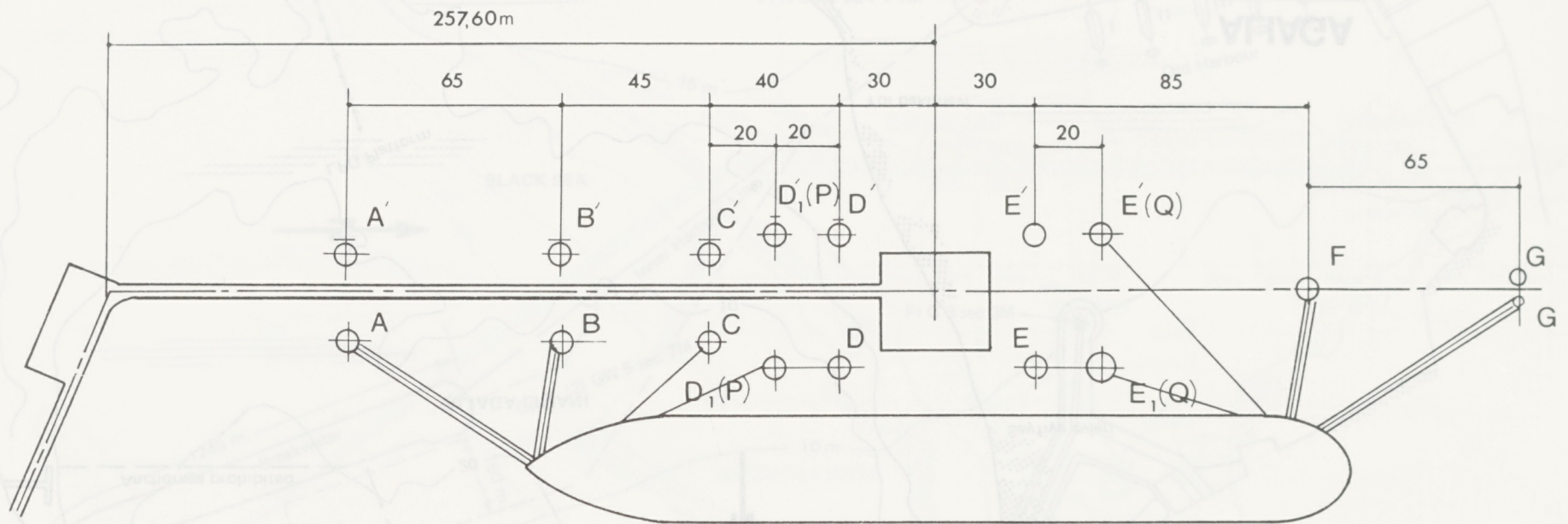
# POINT FONTIN

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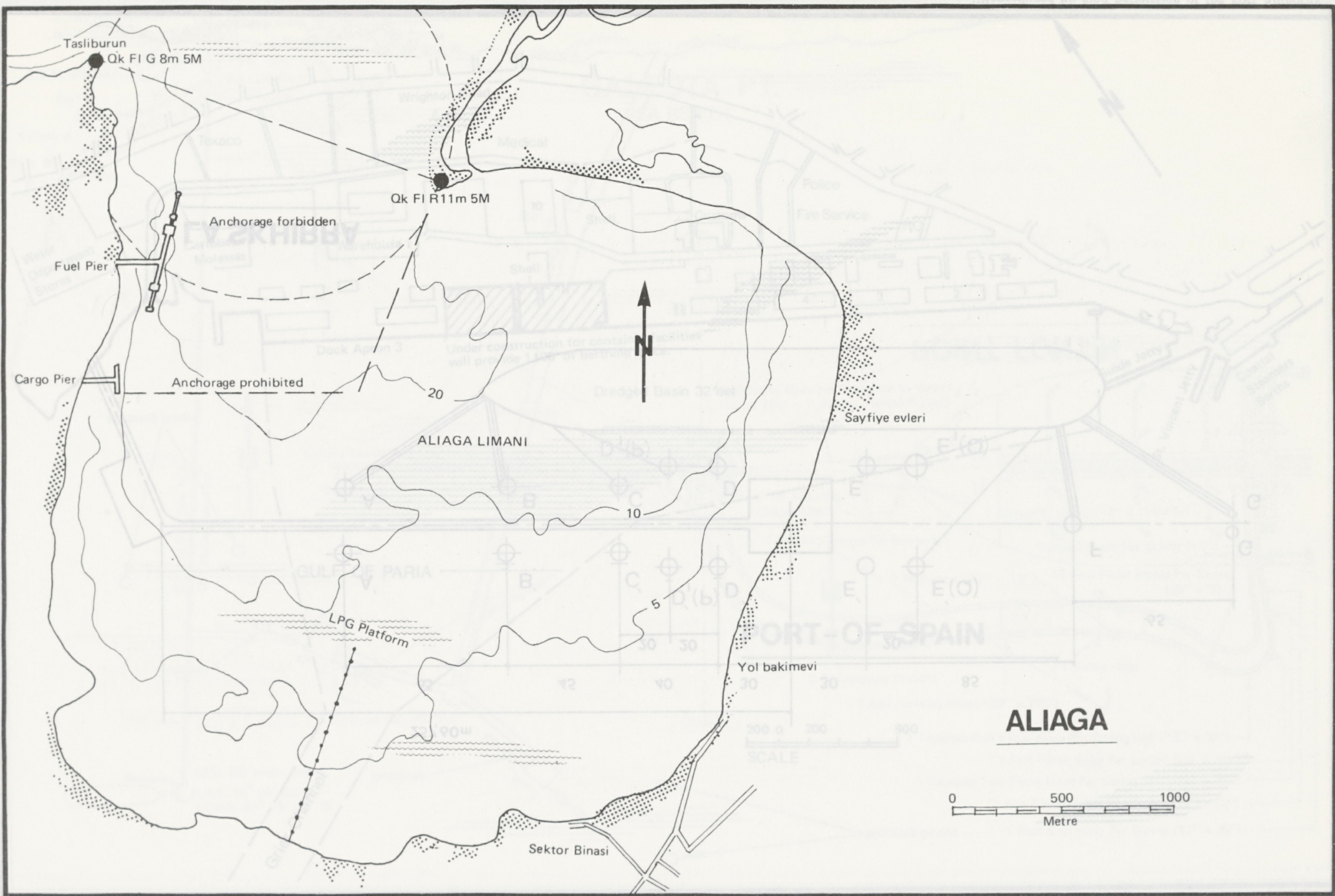




**LA SKHIRRA**

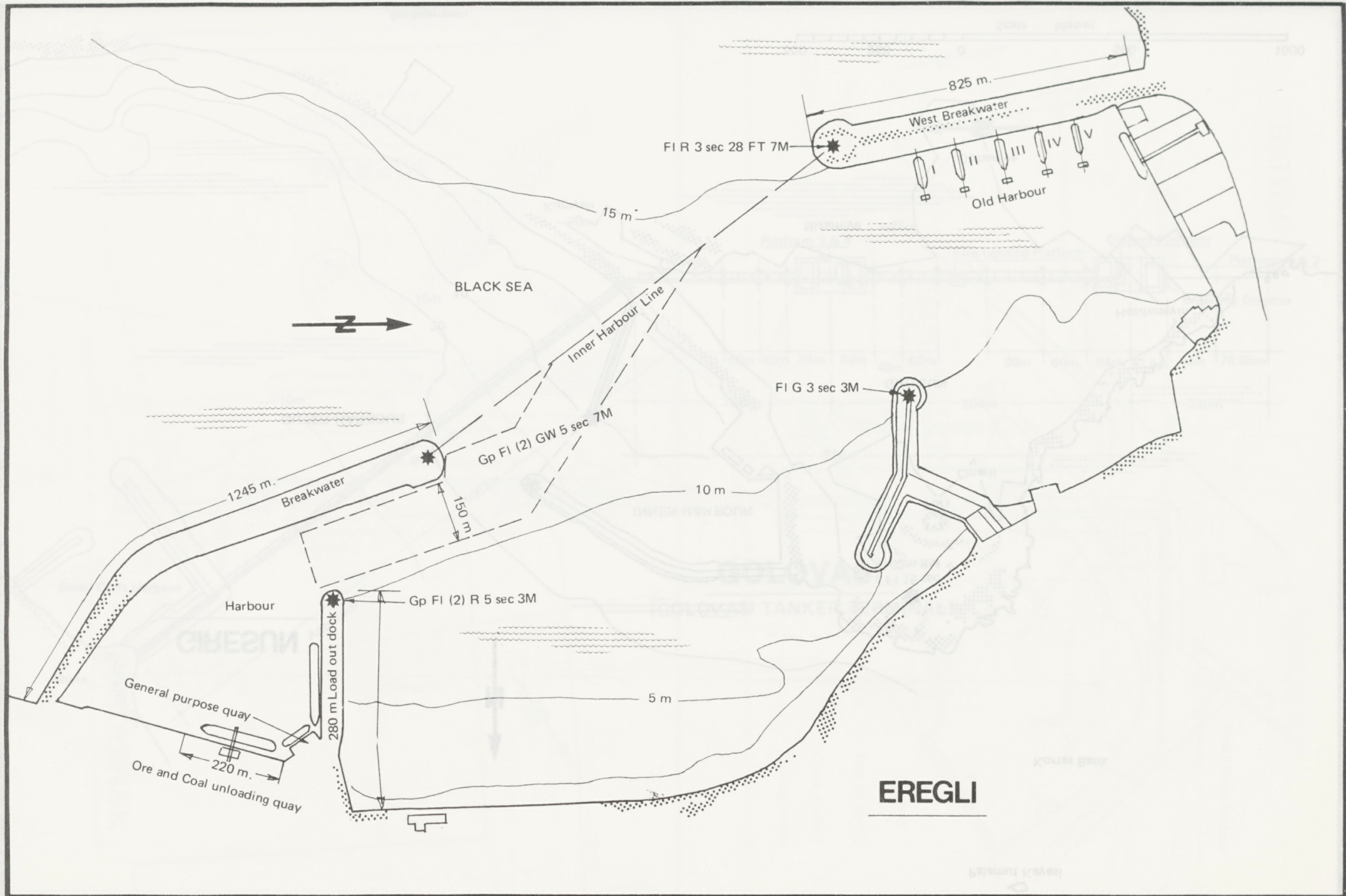
"Reproduced by kind permission of the Port Authority".





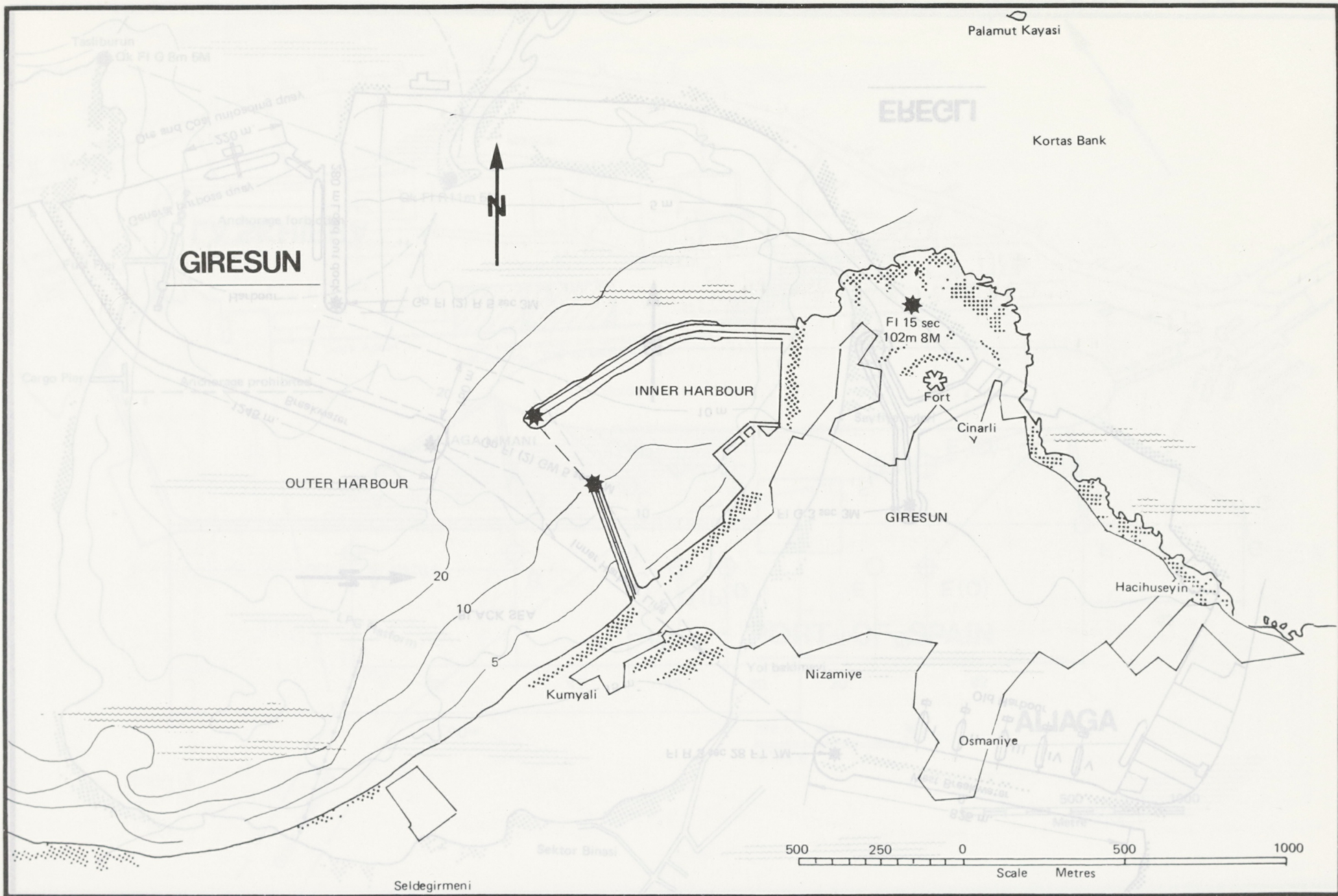
# ALIAGA



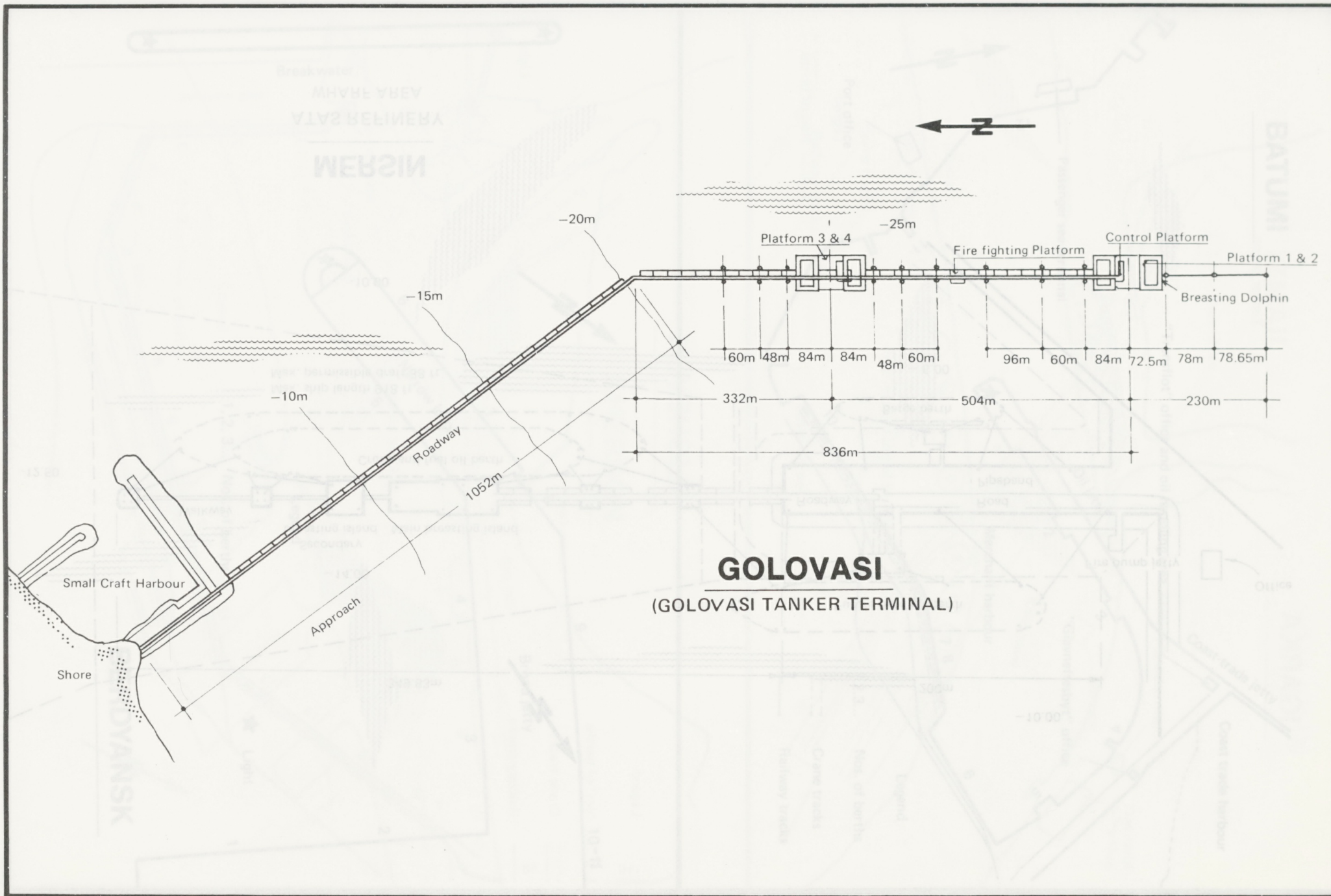


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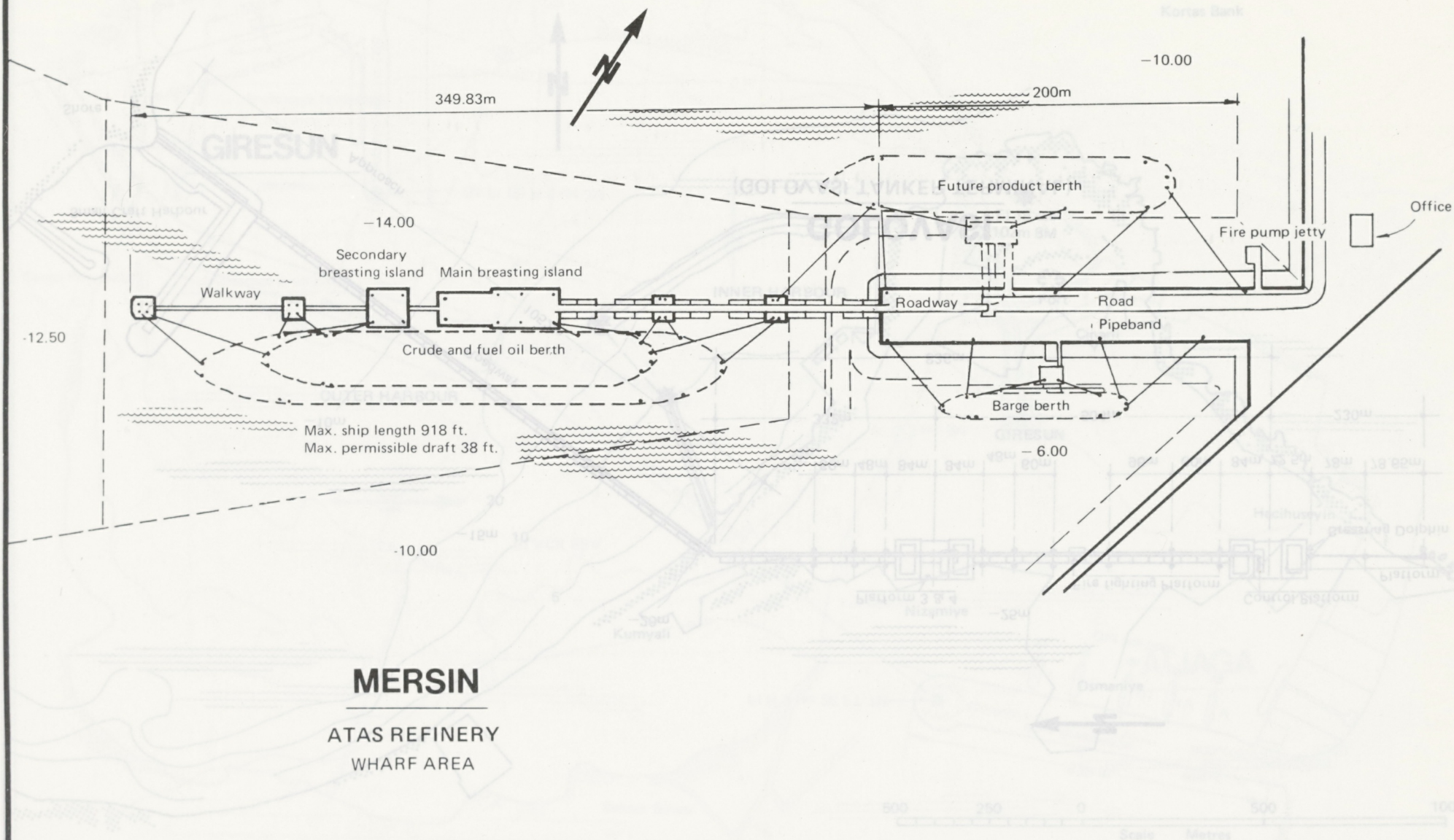




# GOLOVASI (GOLOVASI TANKER TERMINAL)

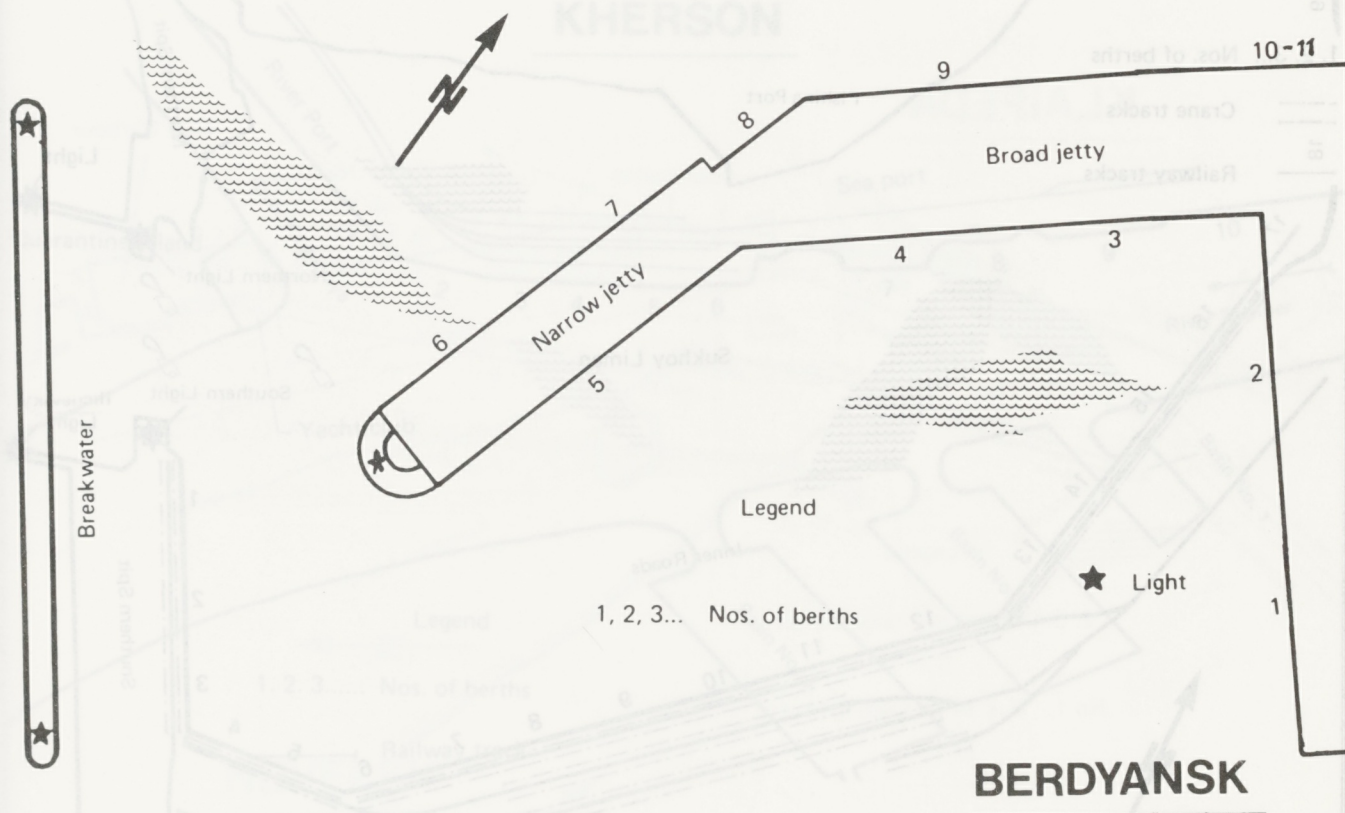
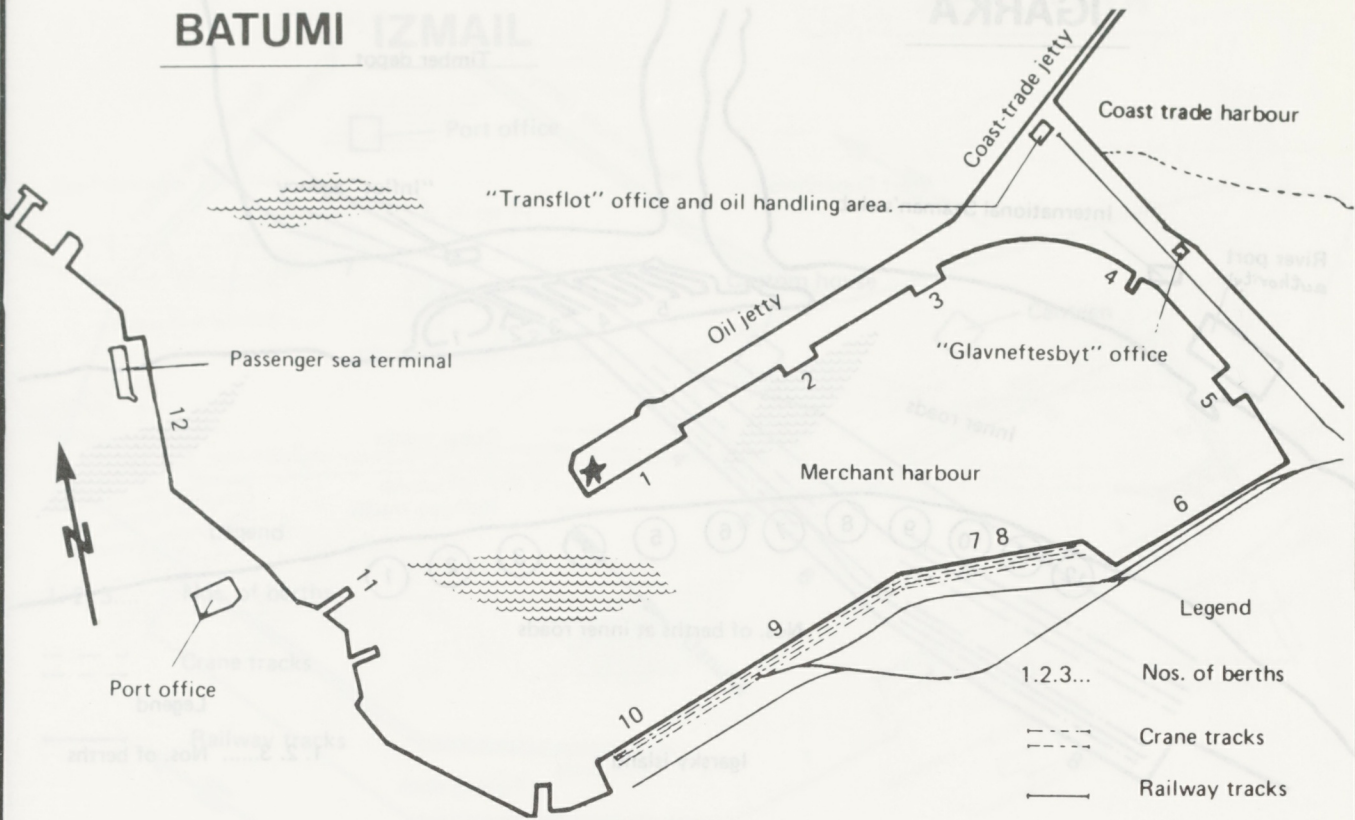
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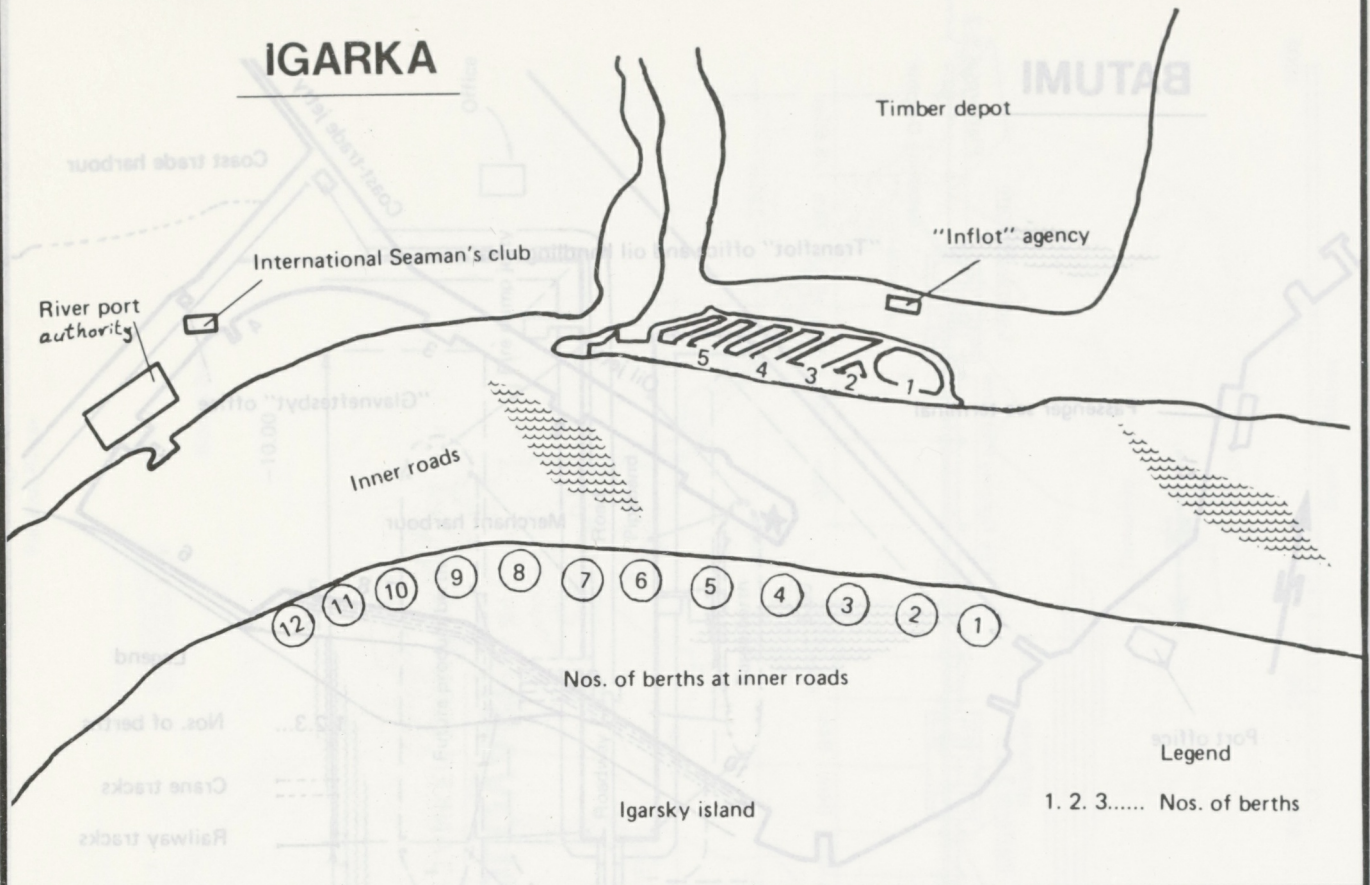


BATUMI

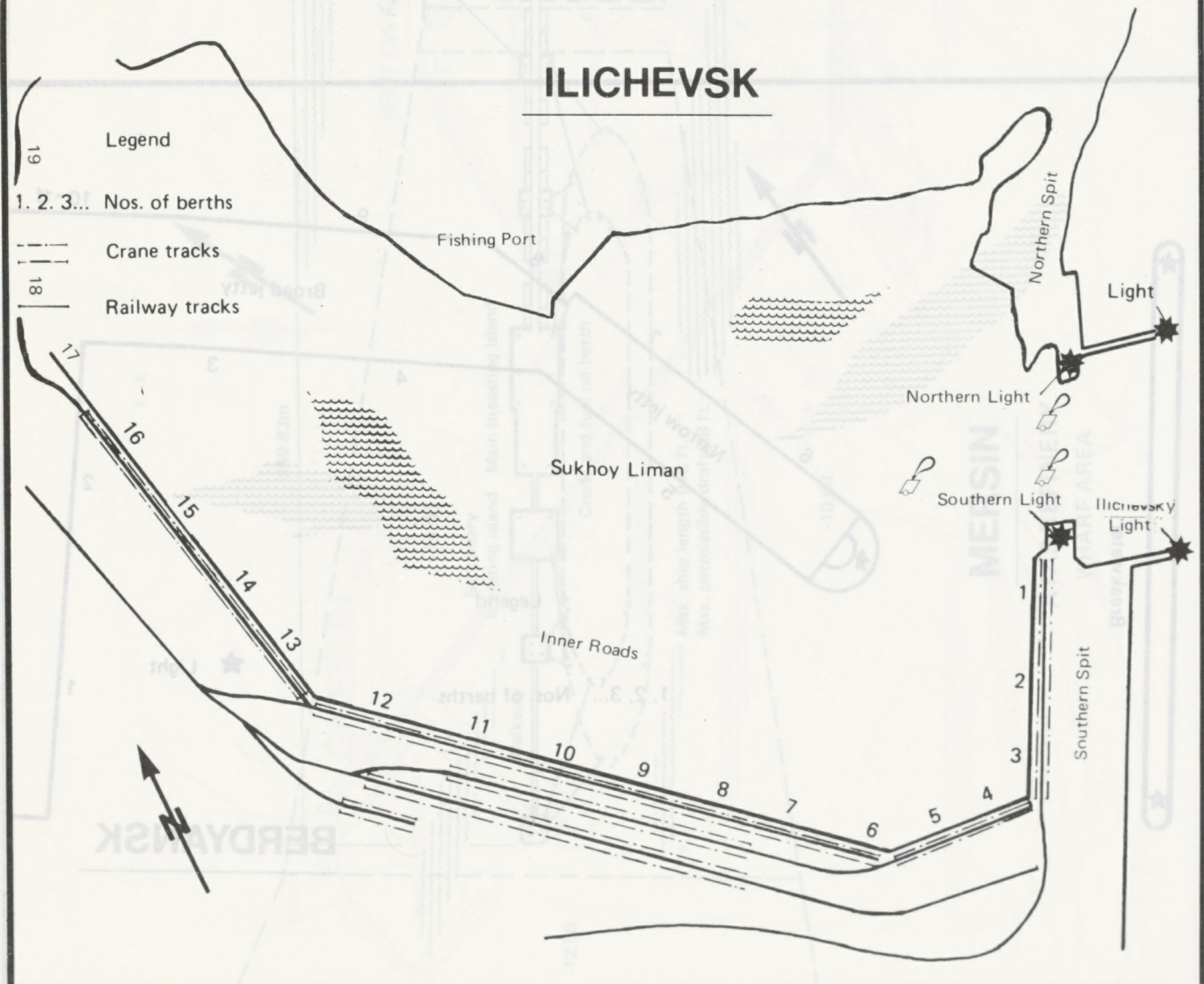




# IGARKA

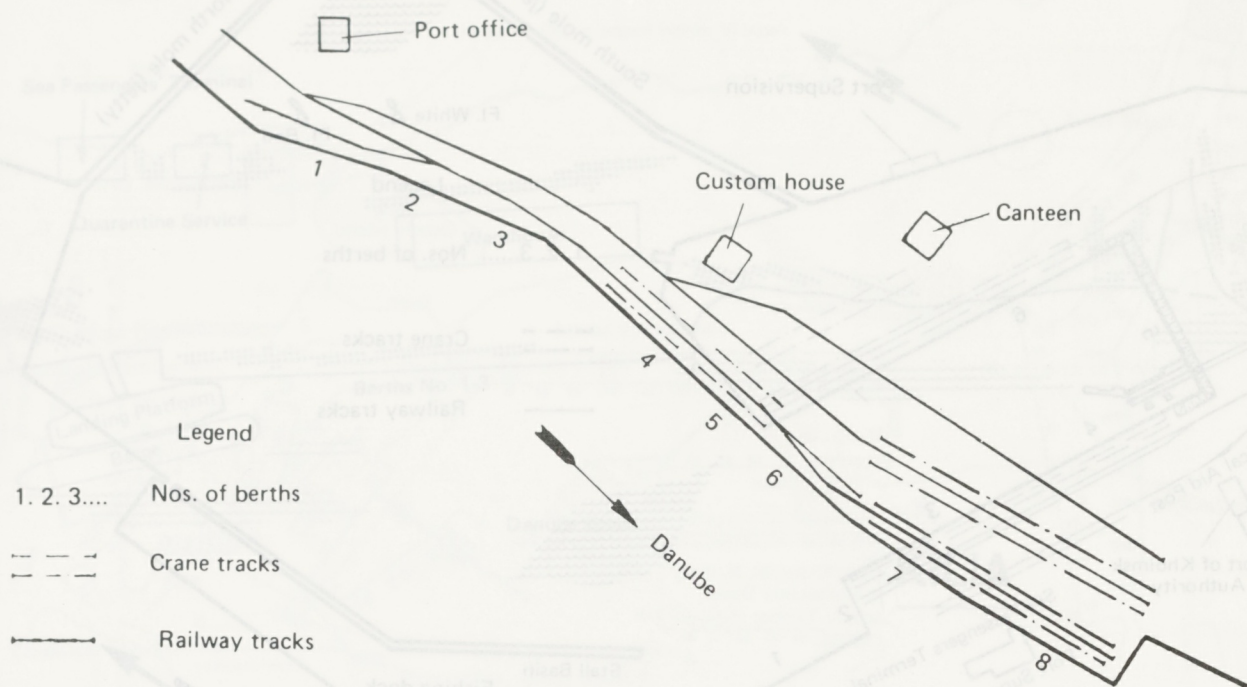


# ILICHEVSK

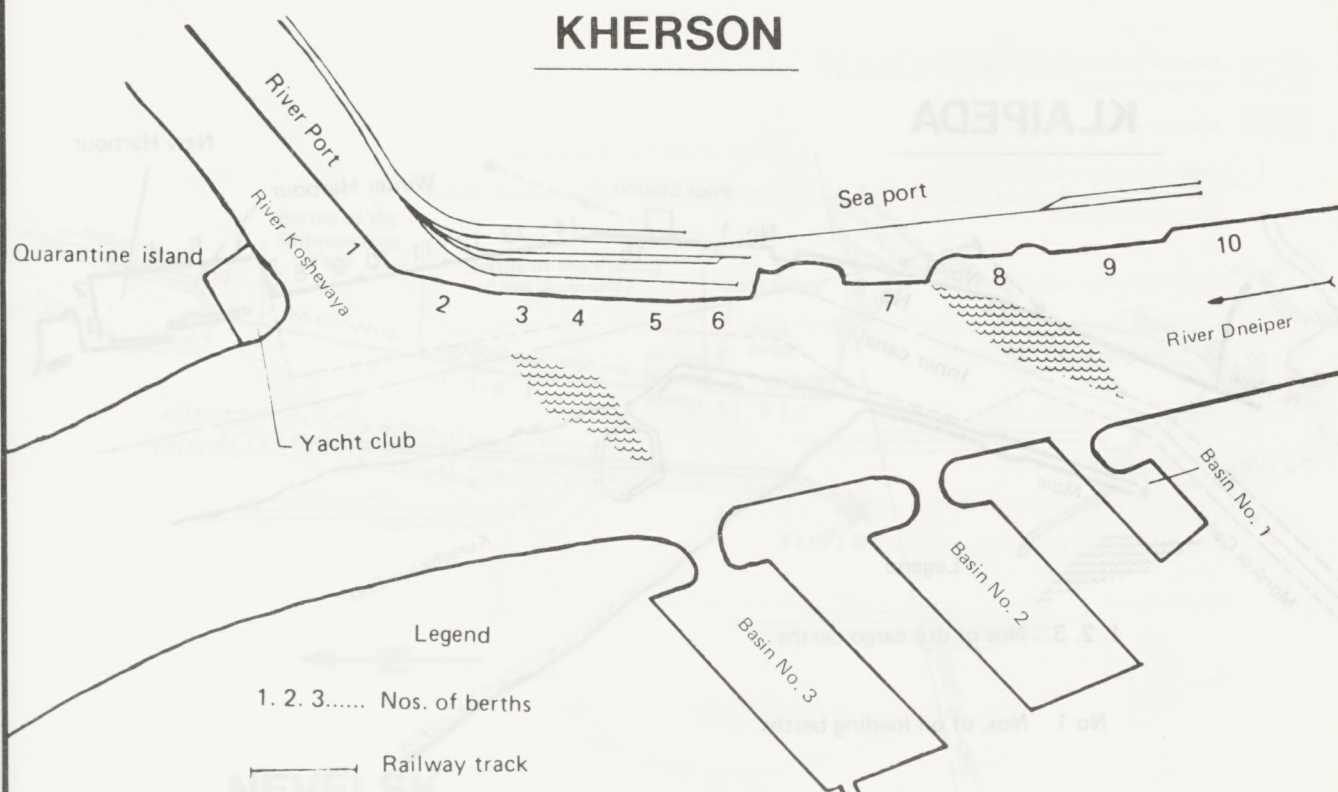




## IZMAIL

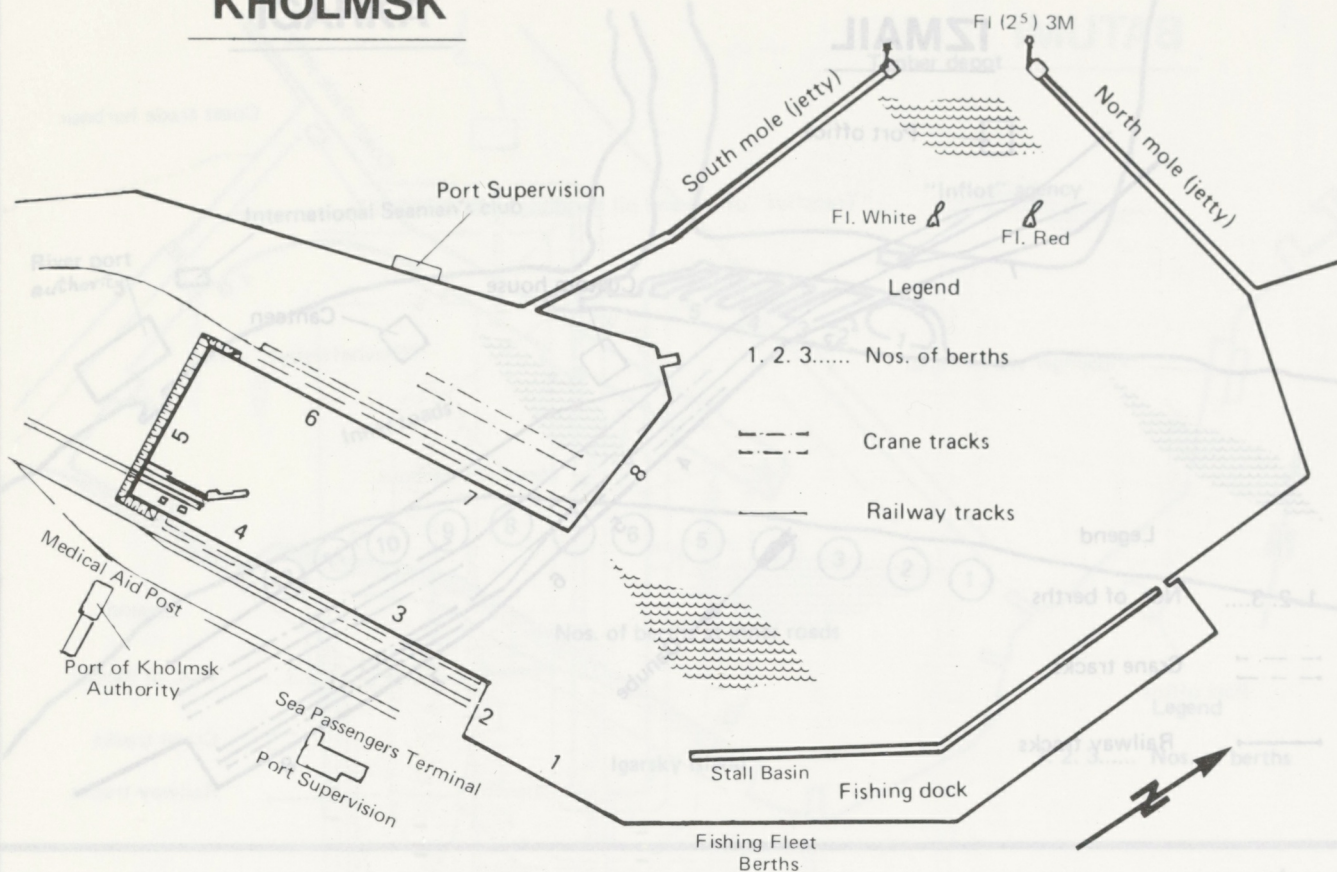


## KHERSON

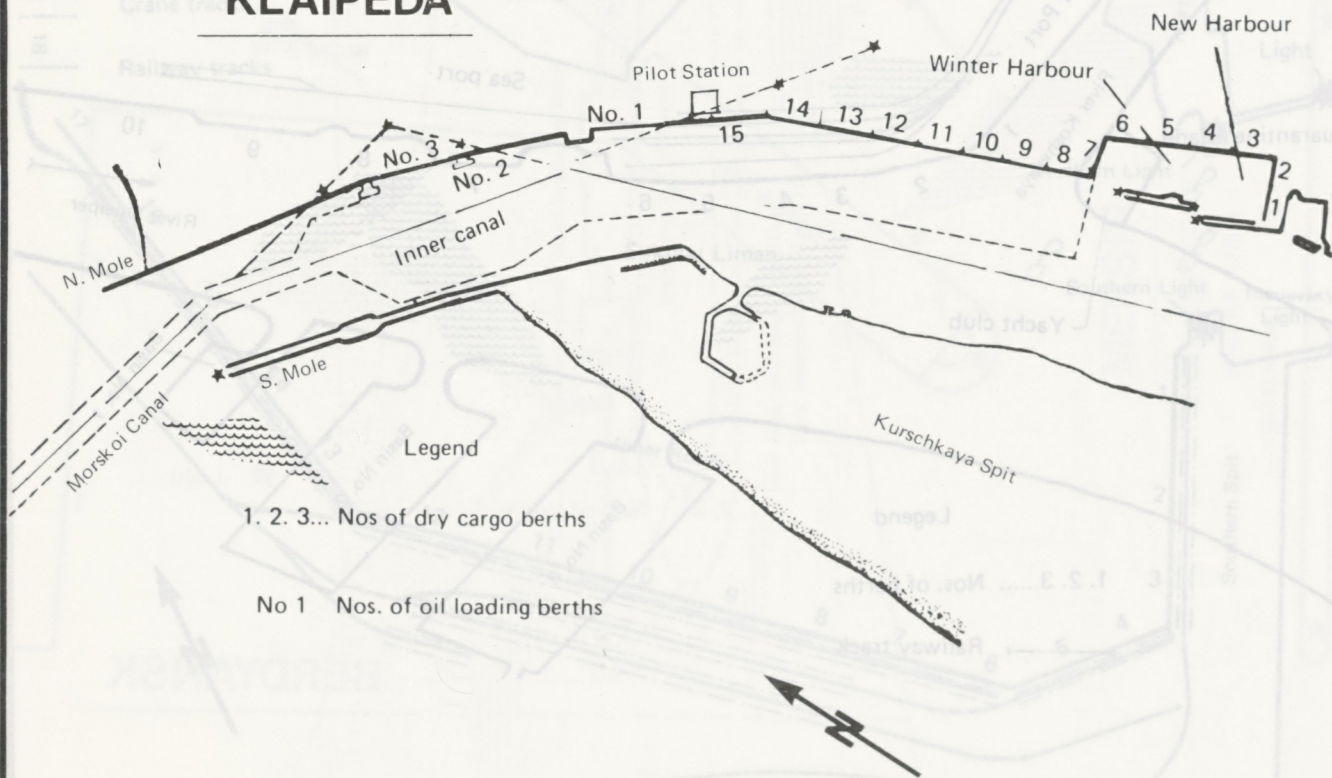




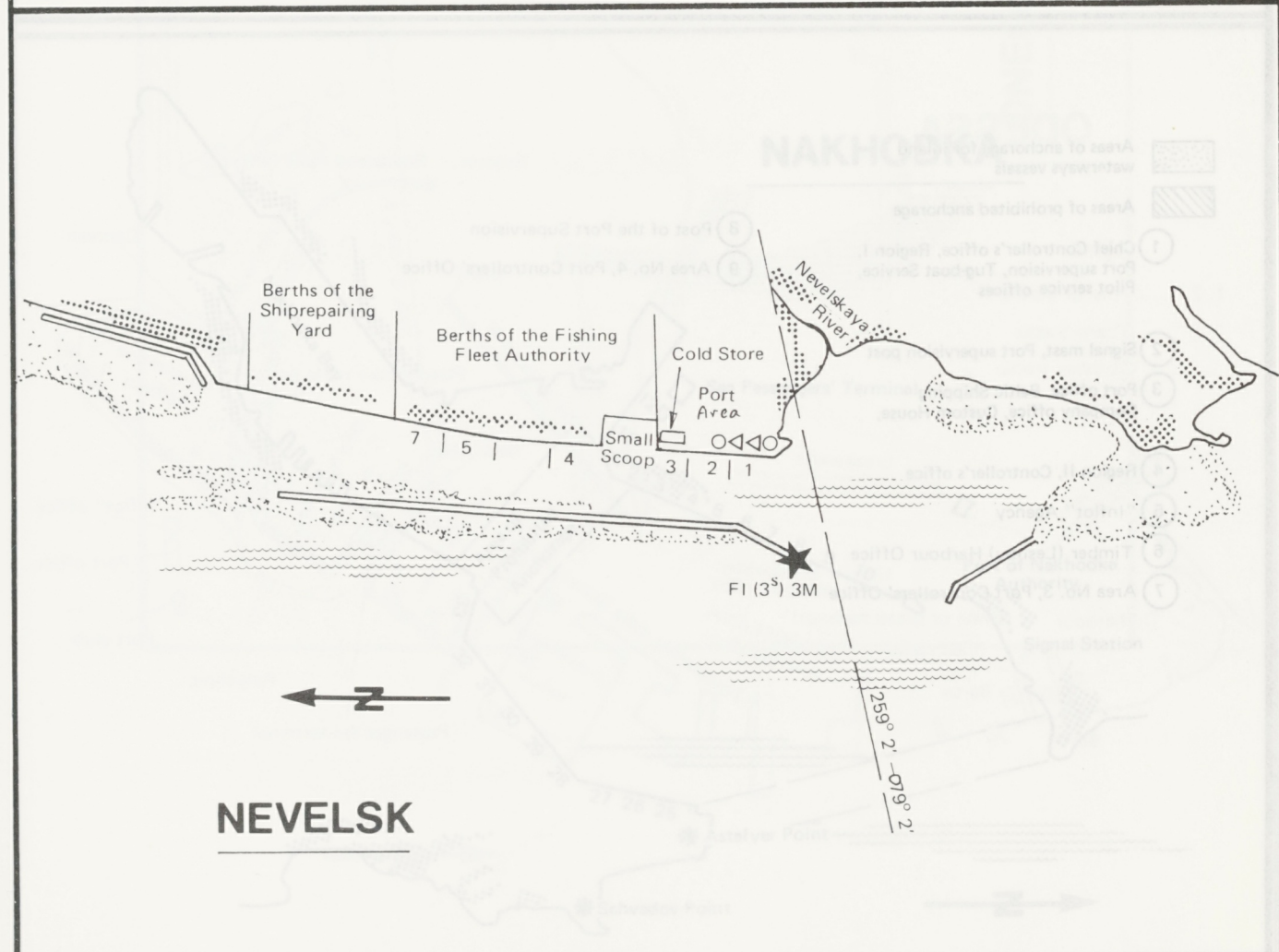
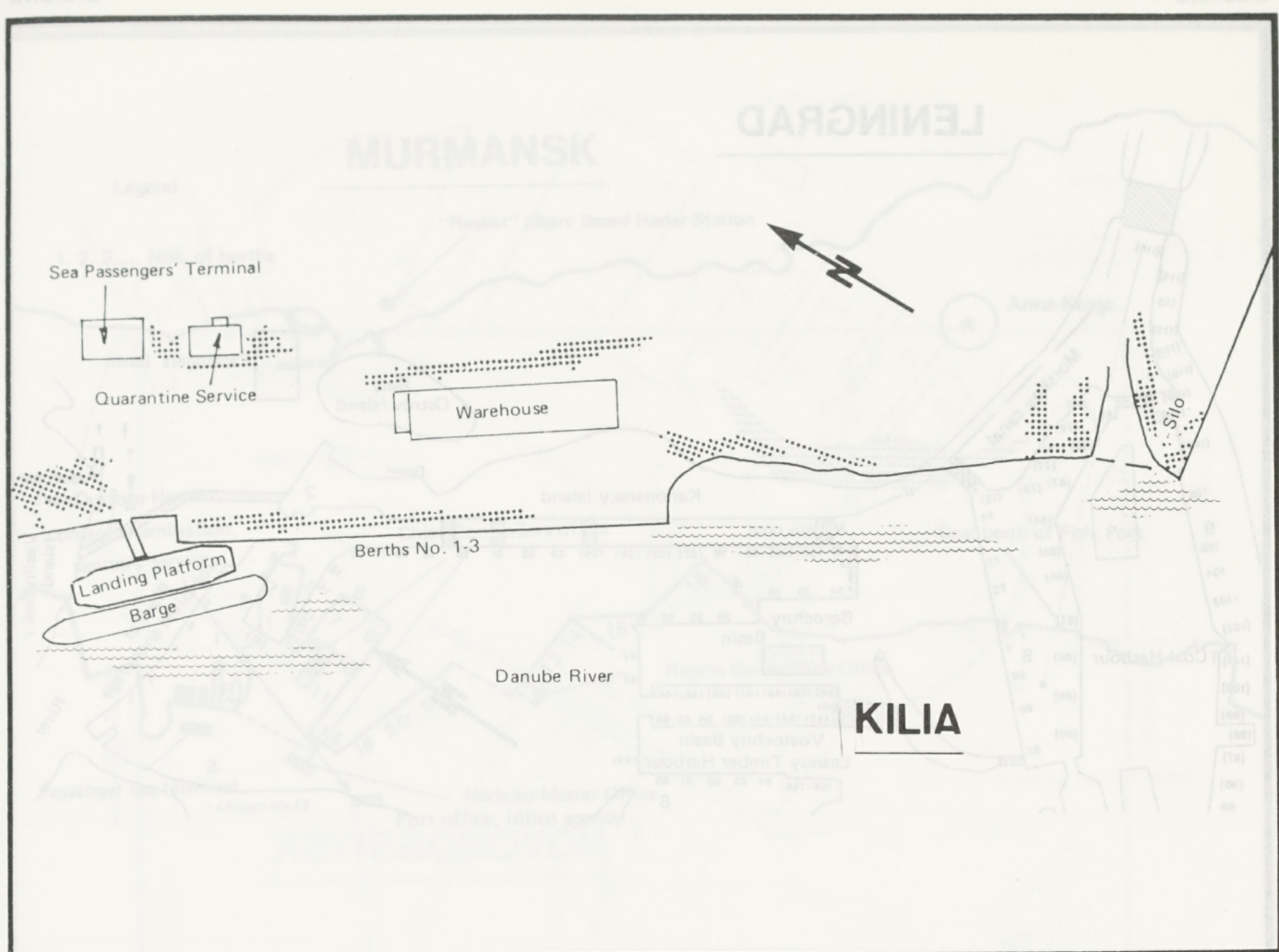
# KHOLMSK



# KLAIPEDA

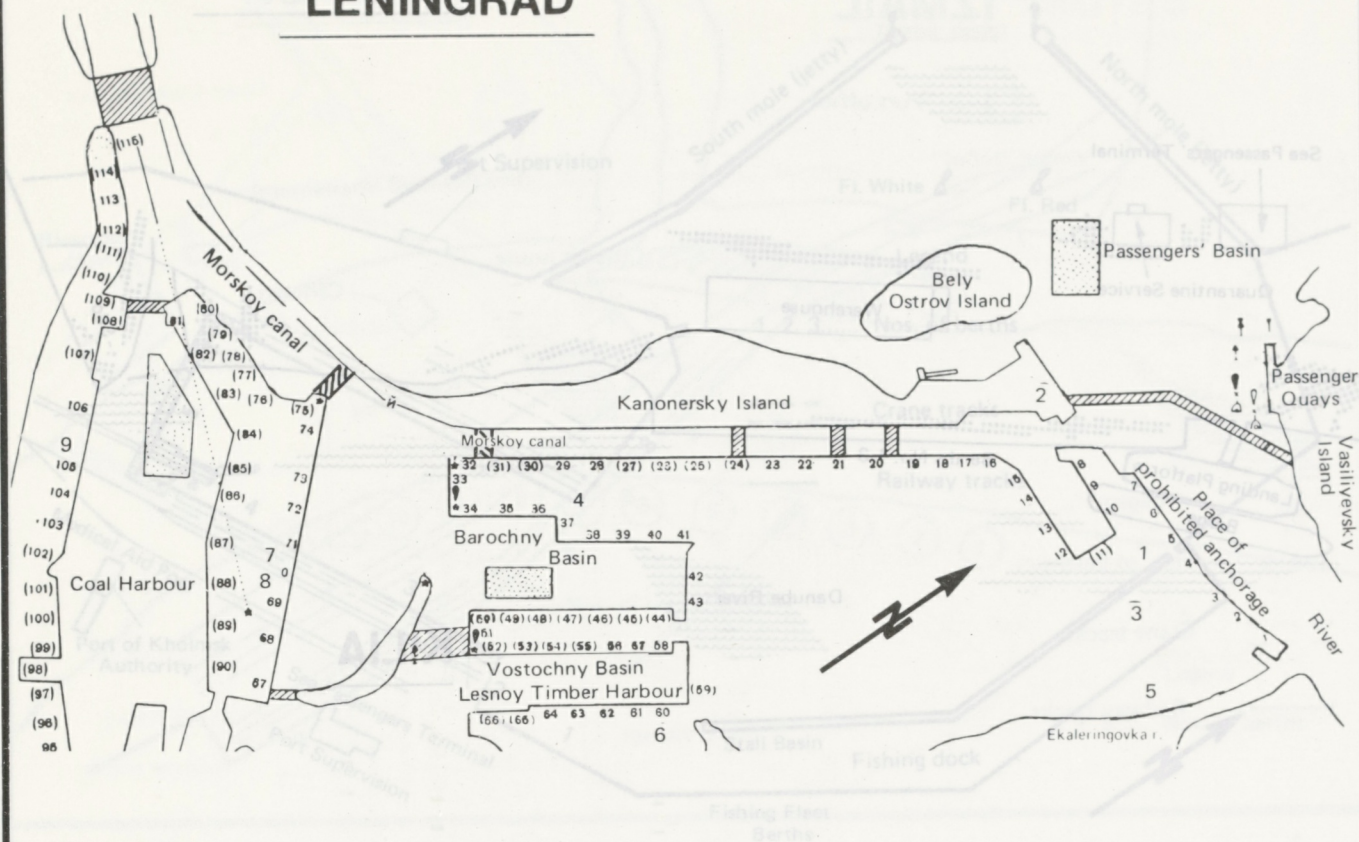










# LENINGRAD



-  Areas of anchorage for inland waterways vessels
-  Areas of prohibited anchorage

- (1) Chief Controller's office, Region I, Port supervision, Tug-boat Service, Pilot service offices
- (2) Signal mast, Port supervision post
- (3) Port office, Baltic Shipping Company office, Custom House,
- (4) Region II, Controller's office
- (5) "Inflot" Agency
- (6) Timber (Lesnoy) Harbour Office
- (7) Area No. 3, Port Controllers' Office
- (8) Post of the Port Supervision
- (9) Area No. 4, Port Controllers' Office



# MURMANSK

Legend

1. 2. 3..... Nos. of berths

"Raskat" Shore Based Radar Station

Anna-Korga

Custom-House,  
control examination,  
sanitary service

Chief Controllers office

Coal berth of Fish. Port

Passenger sea terminal

Harbour Master Office  
Port office, Inflat agency

Region Controller's Office

# NAKHODKA

Nakhodka Bay

Sea Passengers' Terminal

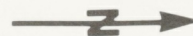
Area of  
Prohibited  
Anchorage

Port of Nakhodka  
Authority

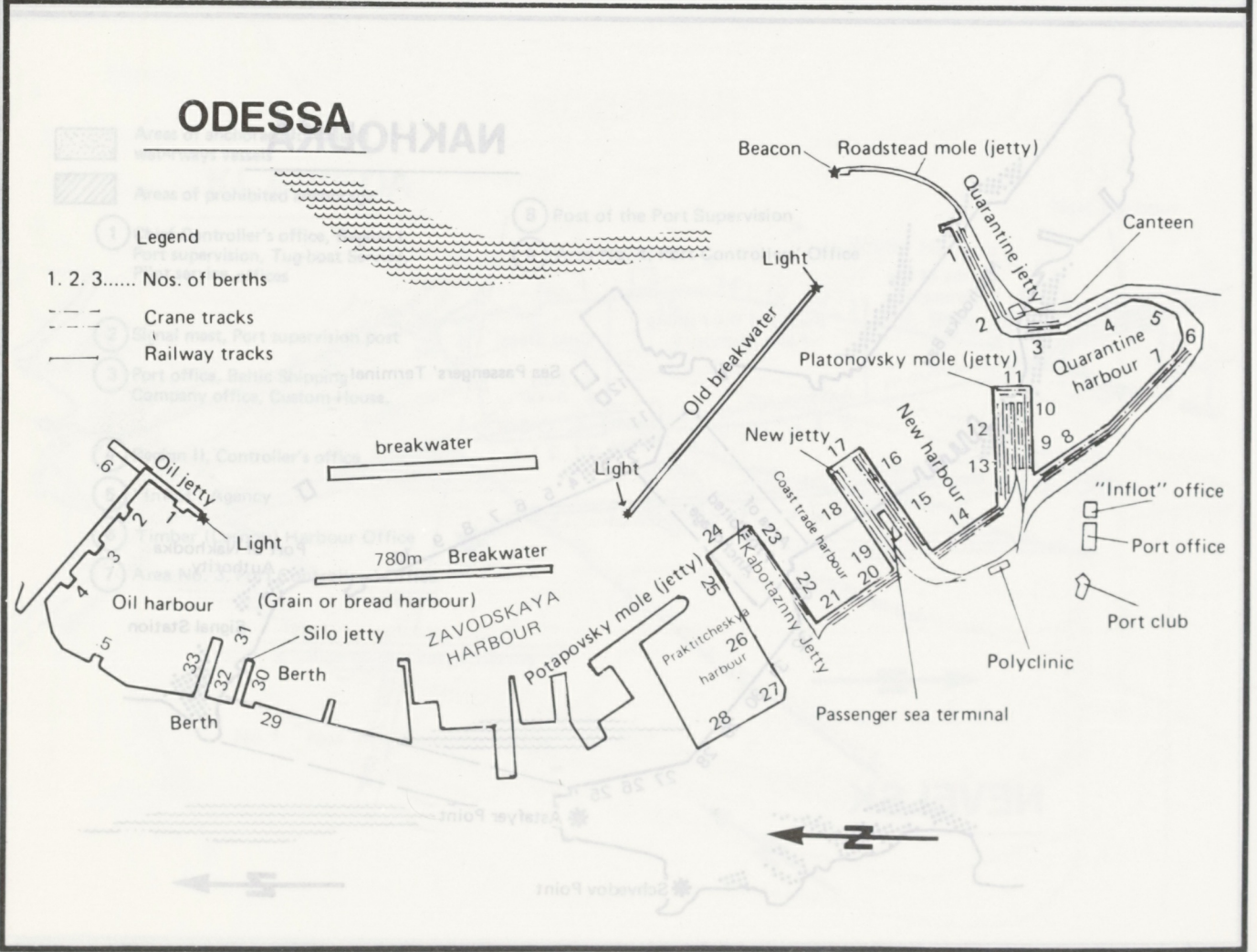
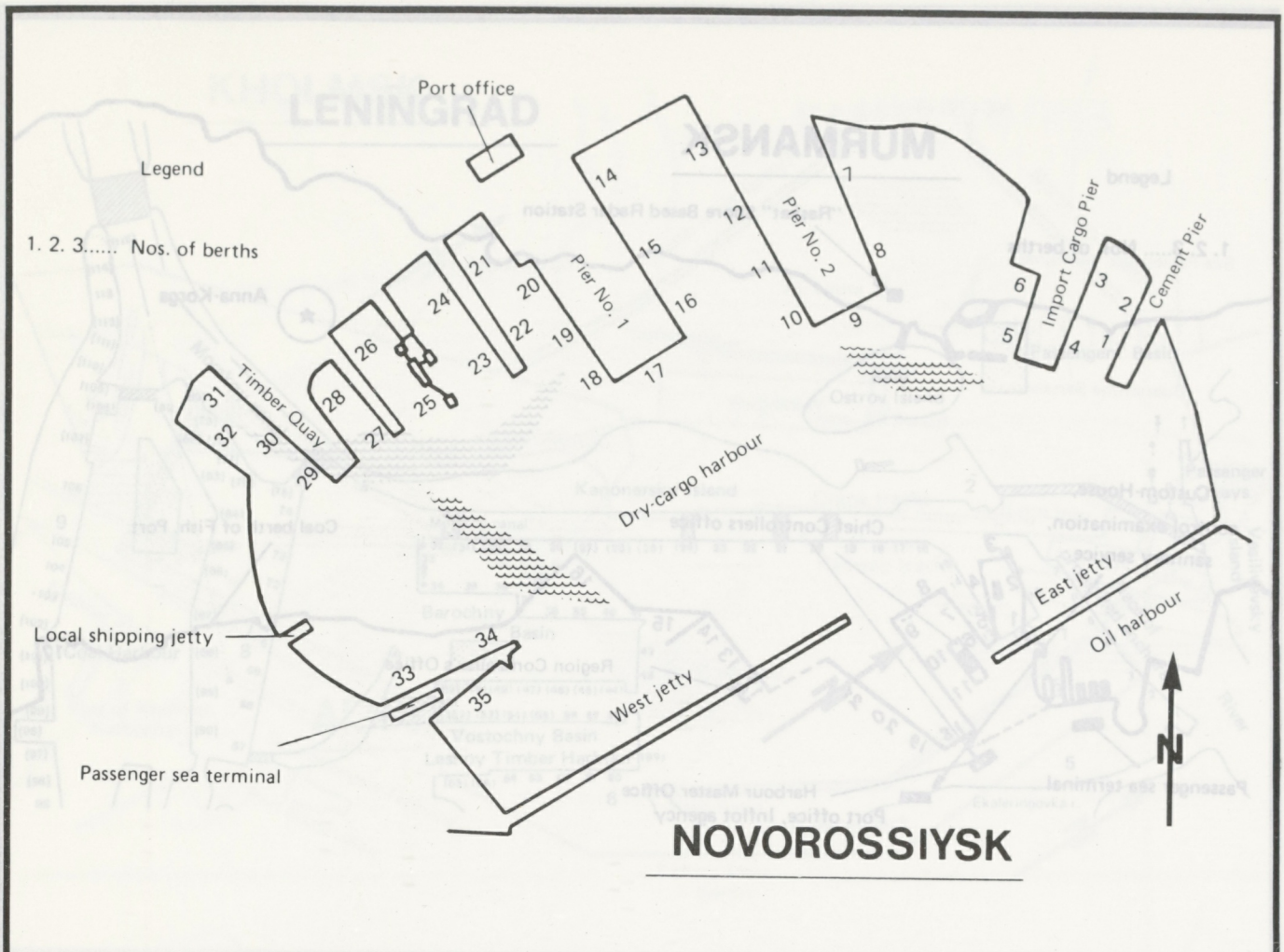
Signal Station

Astafyer Point

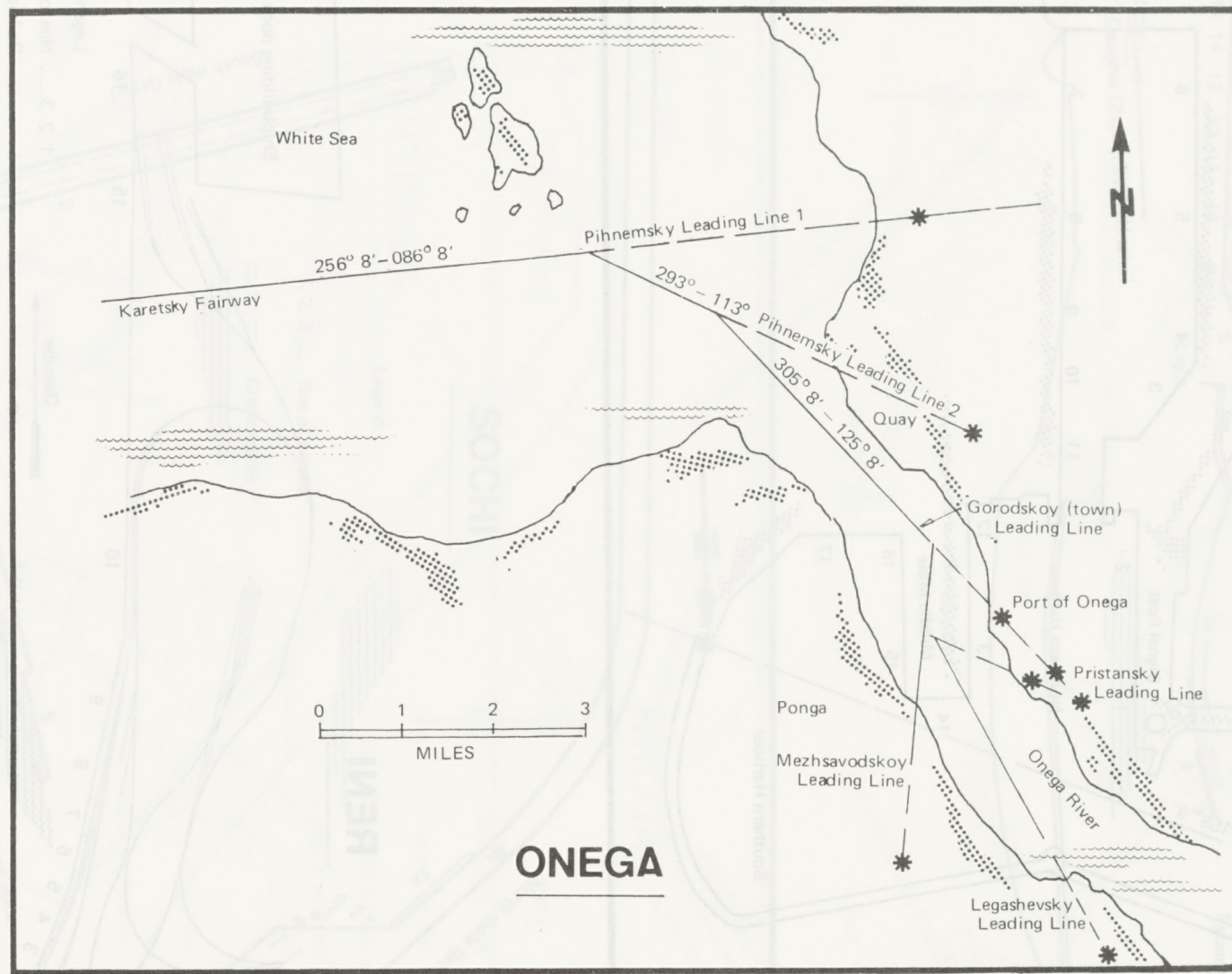
Schvedov Point





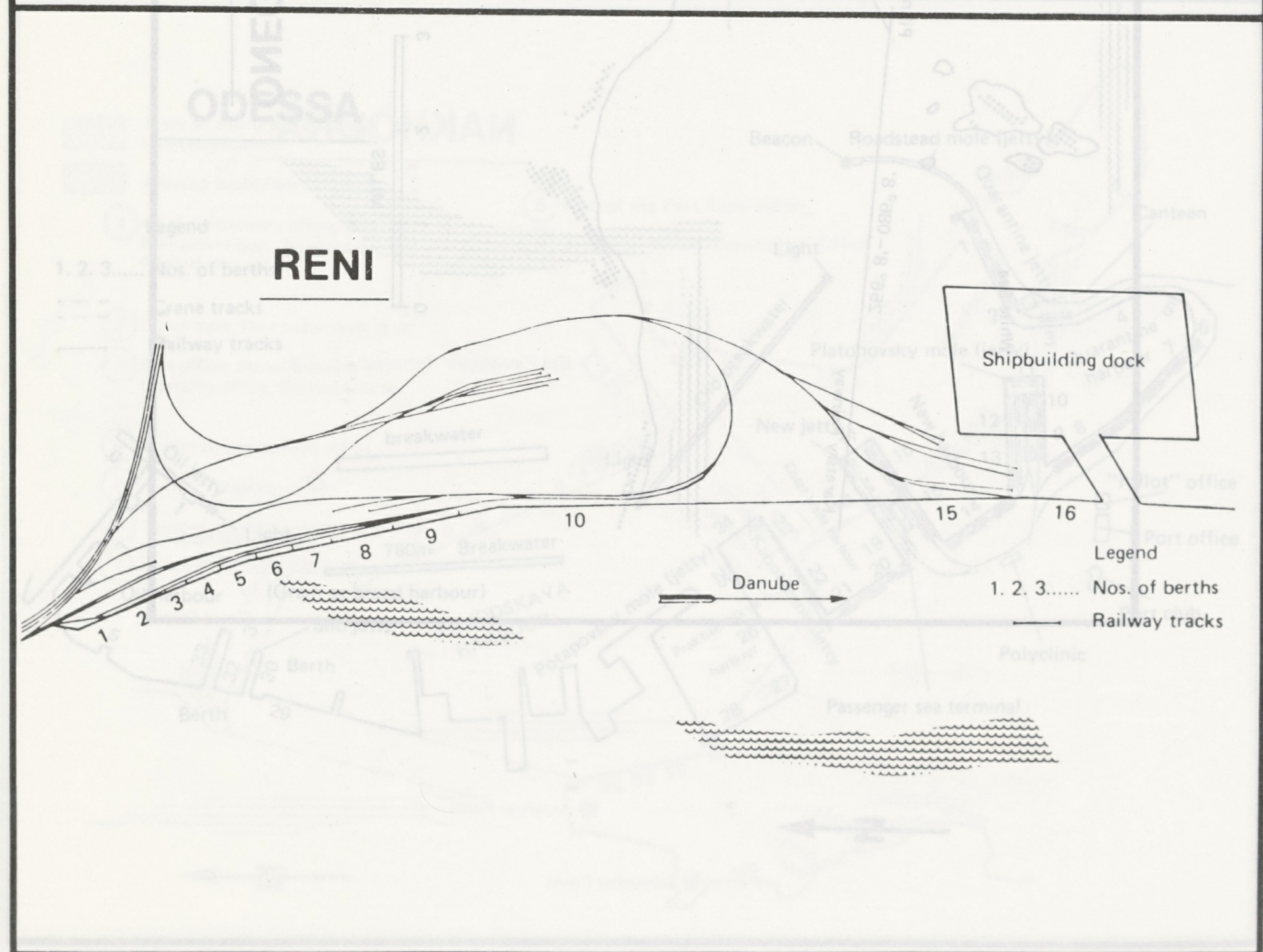
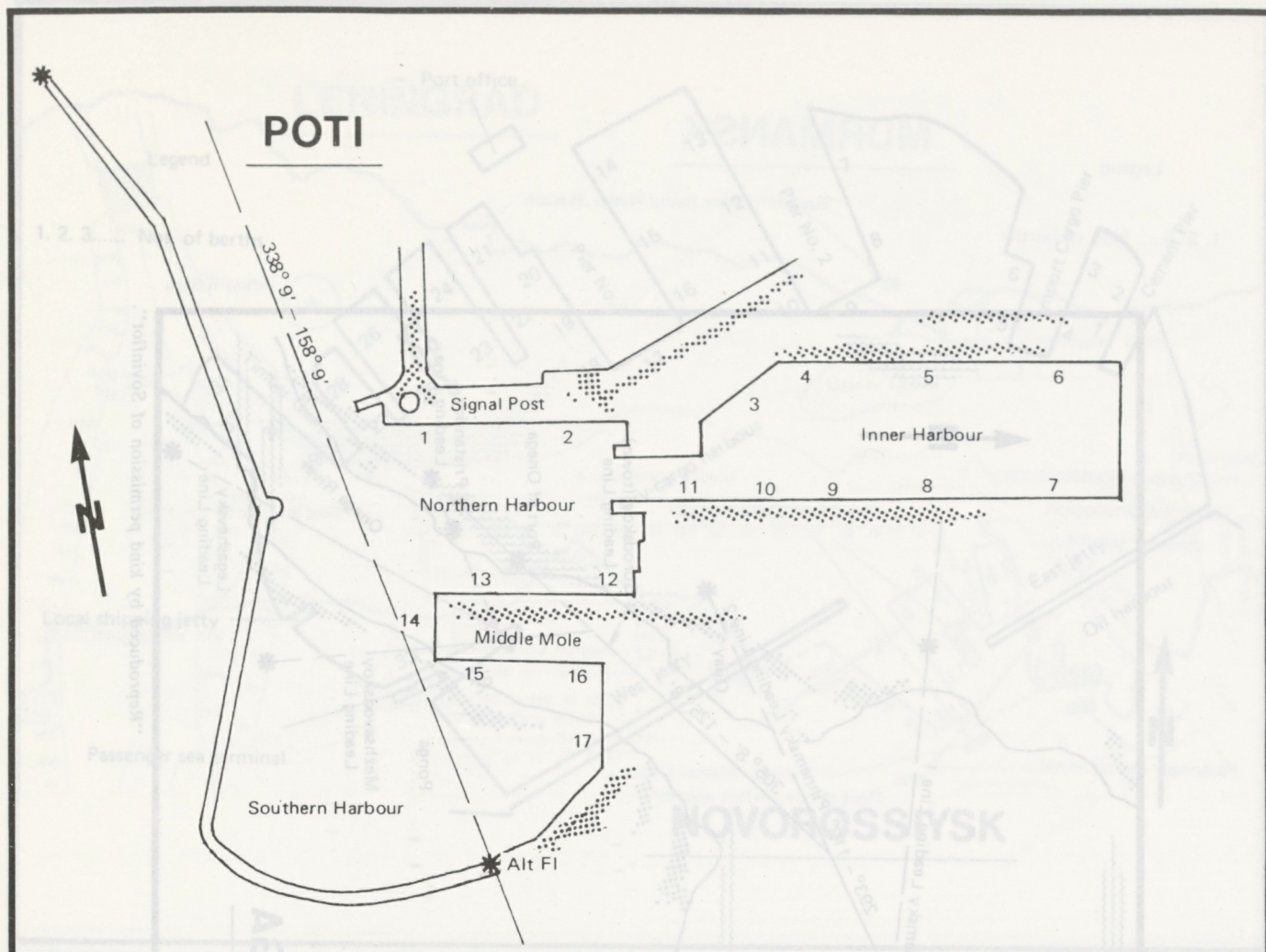




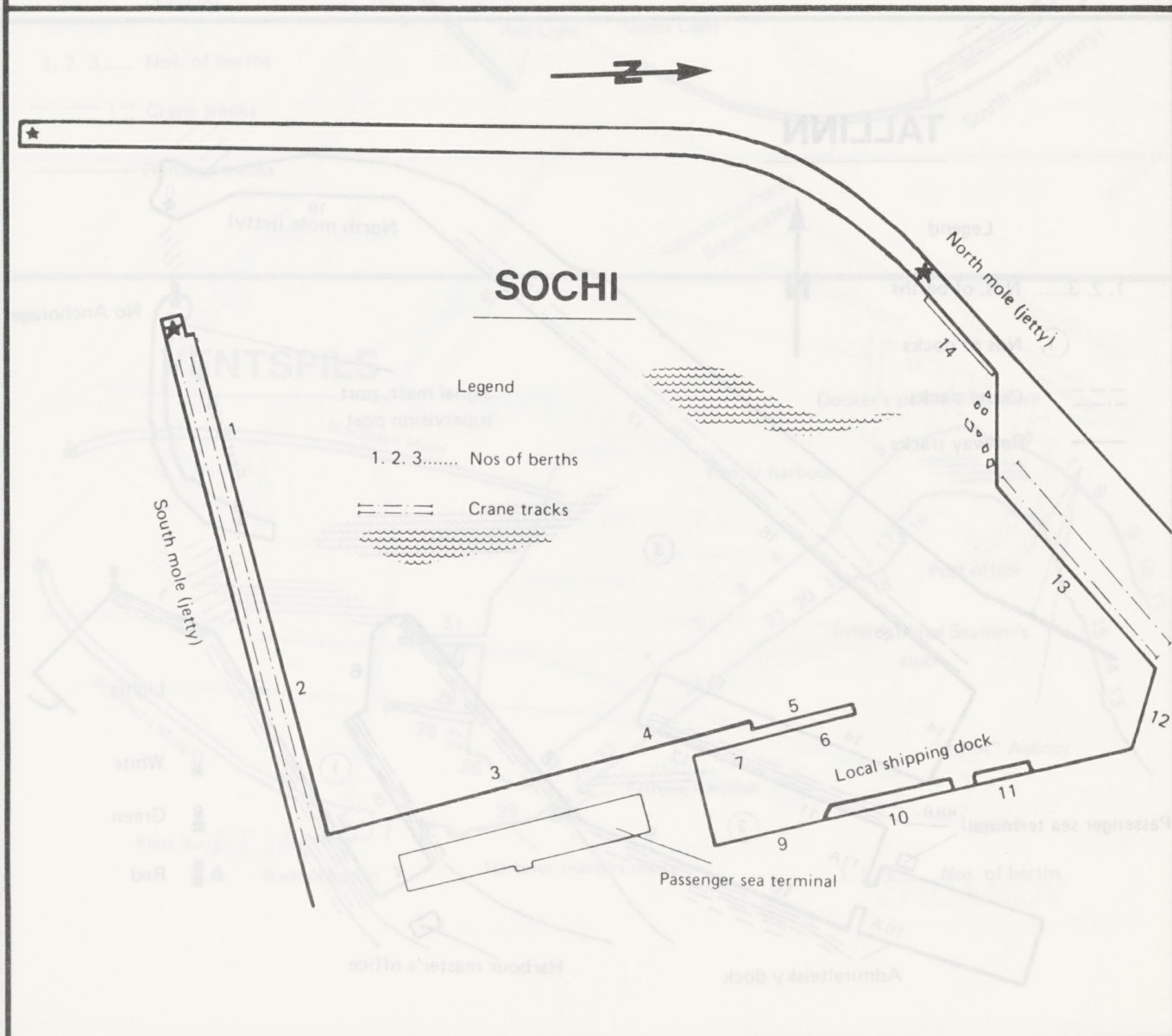
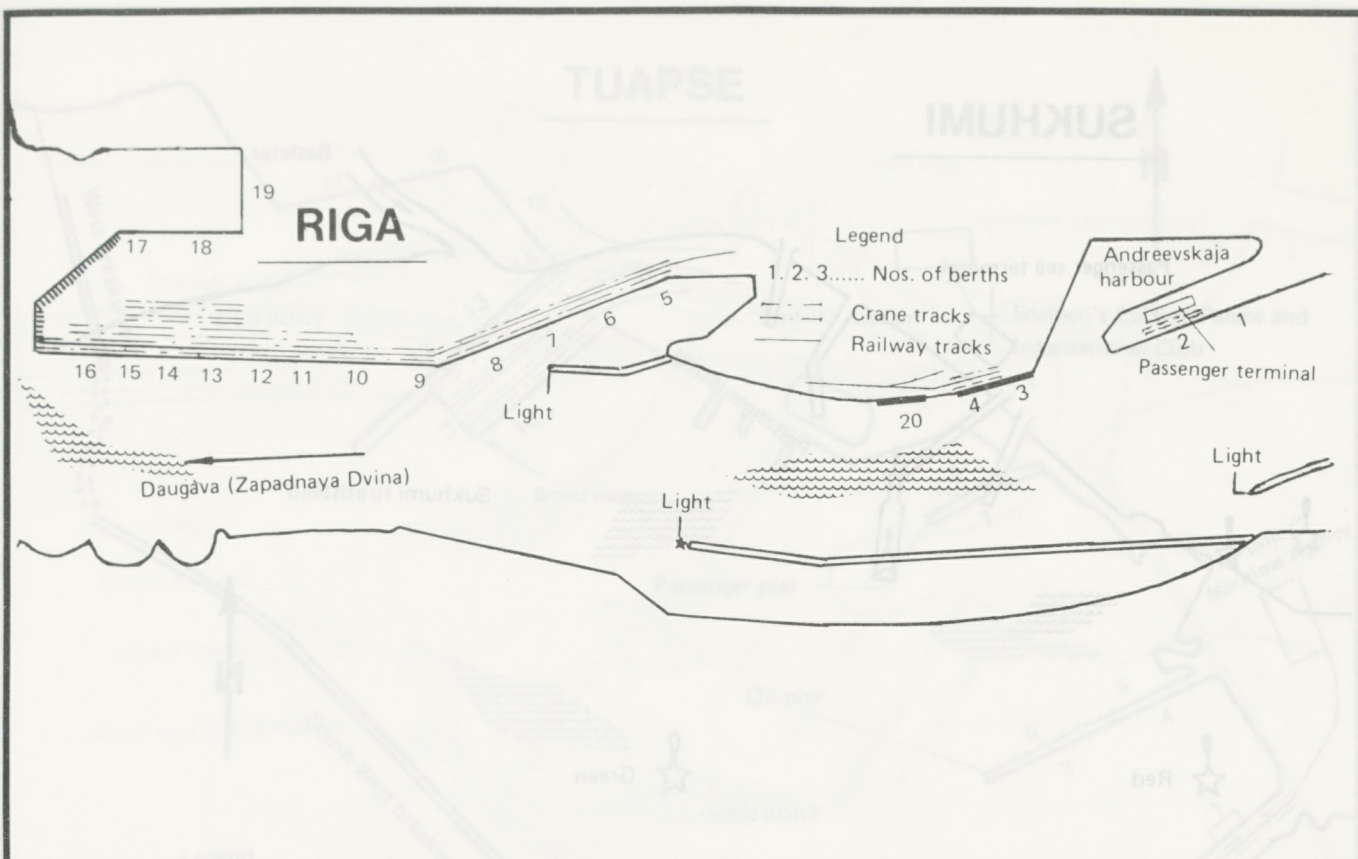


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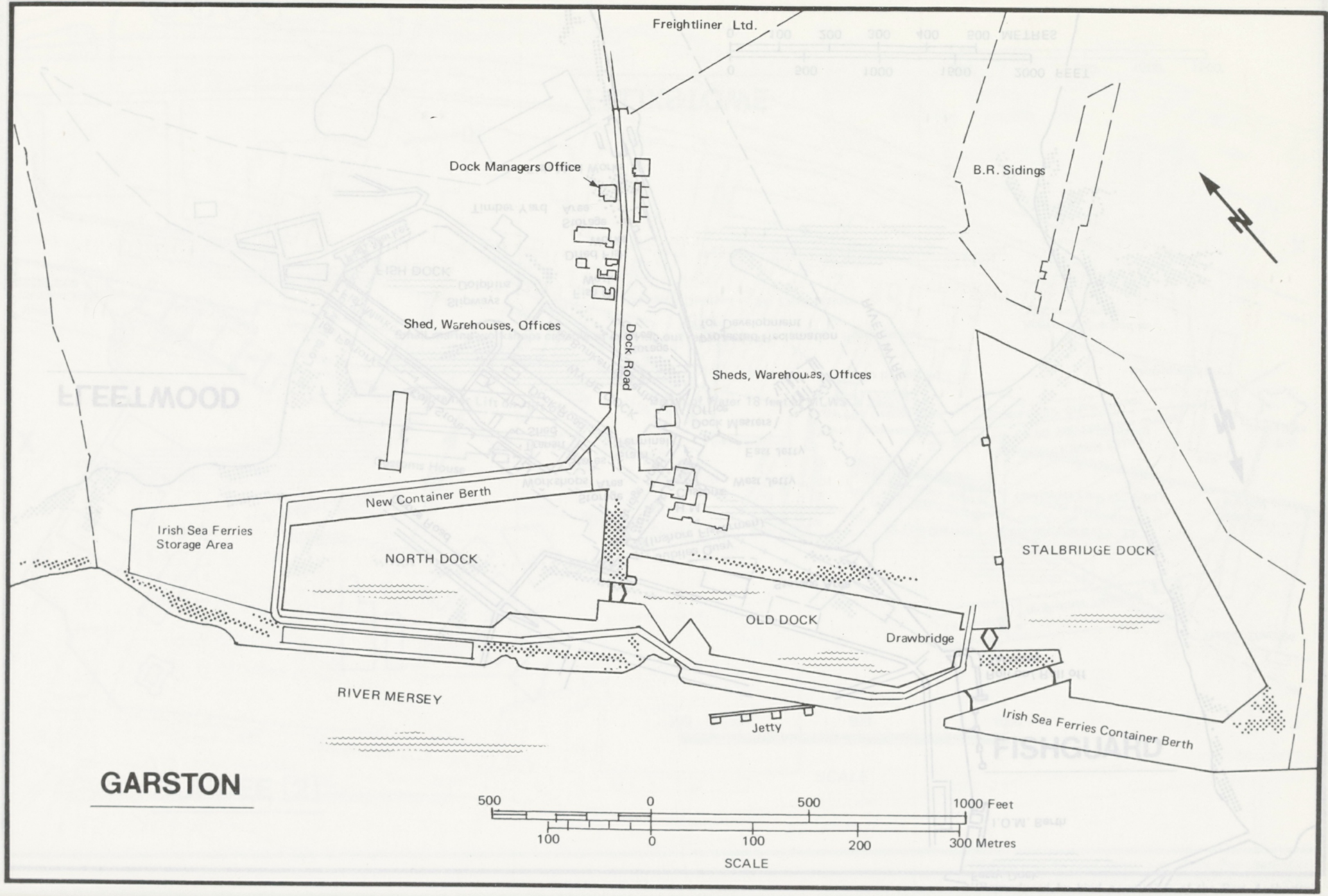








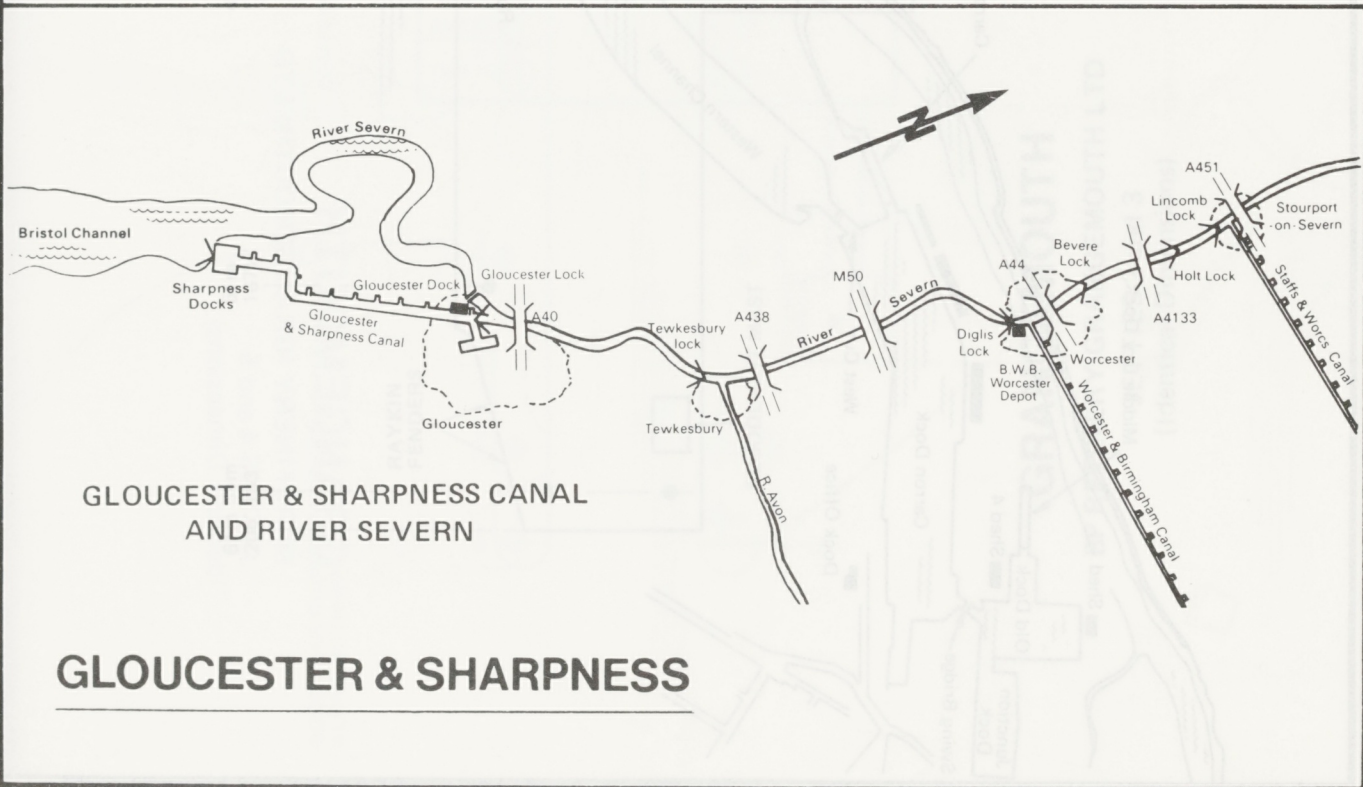
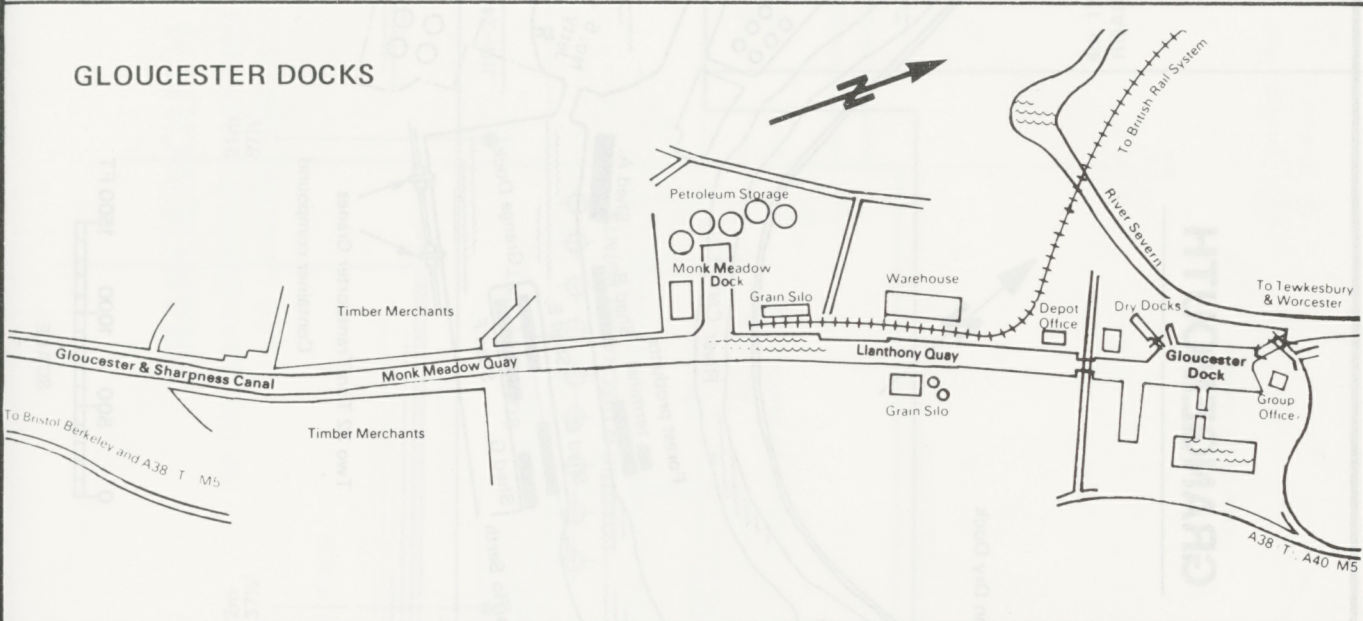
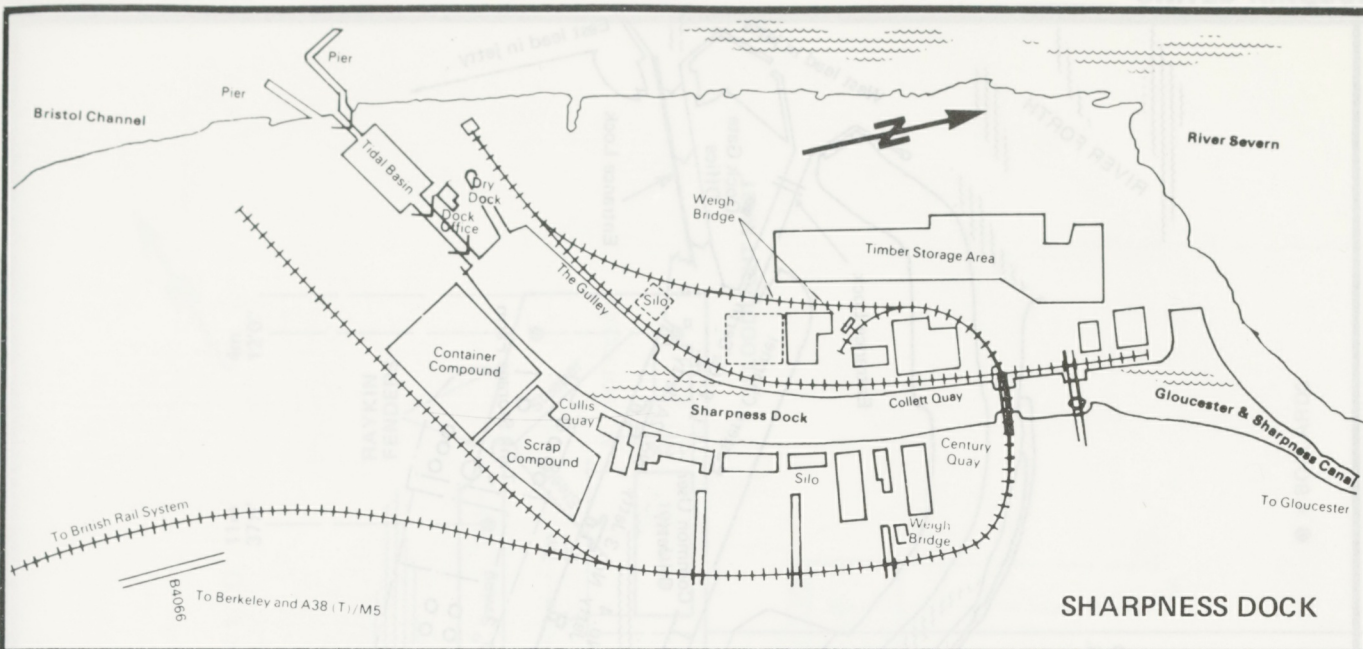




**GARSTON**

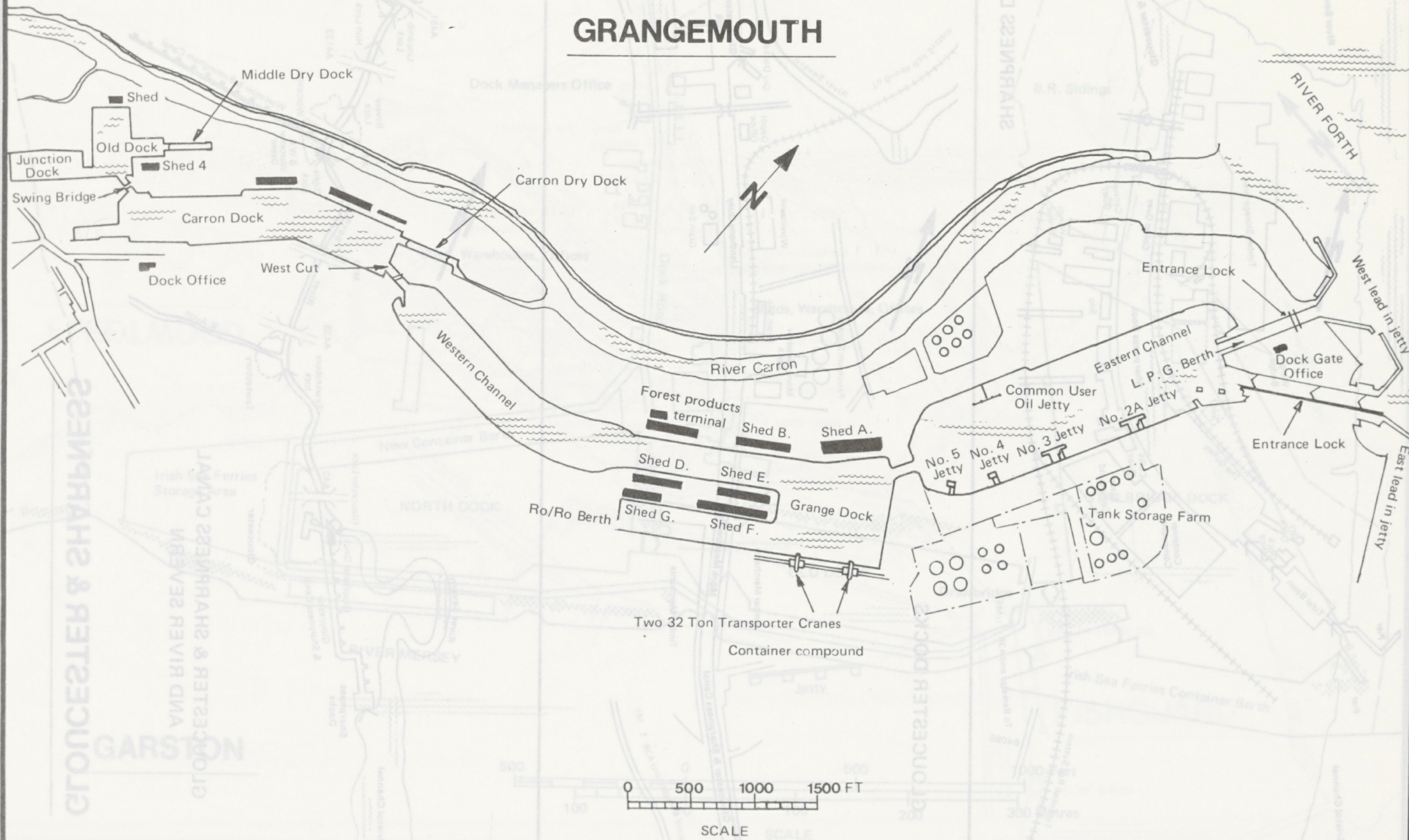
500 0 500 1000 Feet  
100 0 100 200 300 Metres  
SCALE



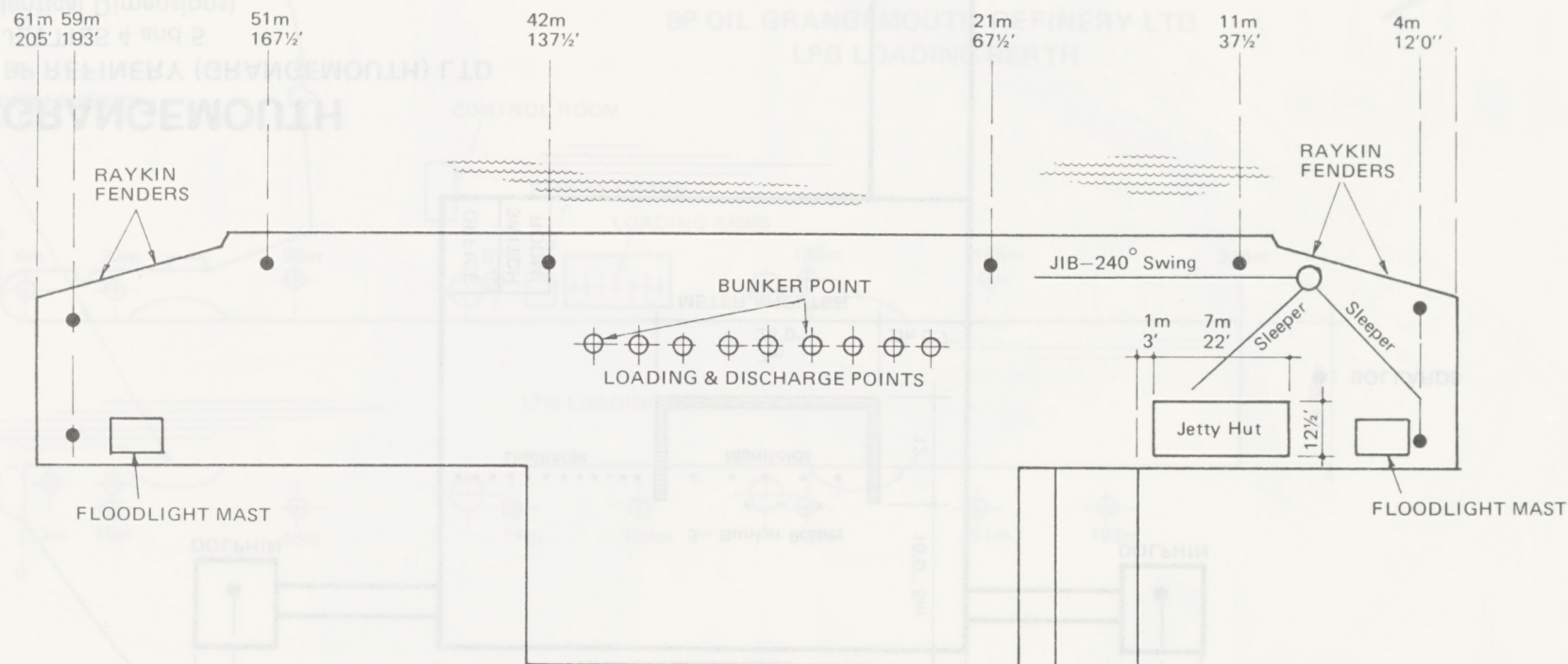




# GRANGEMOUTH







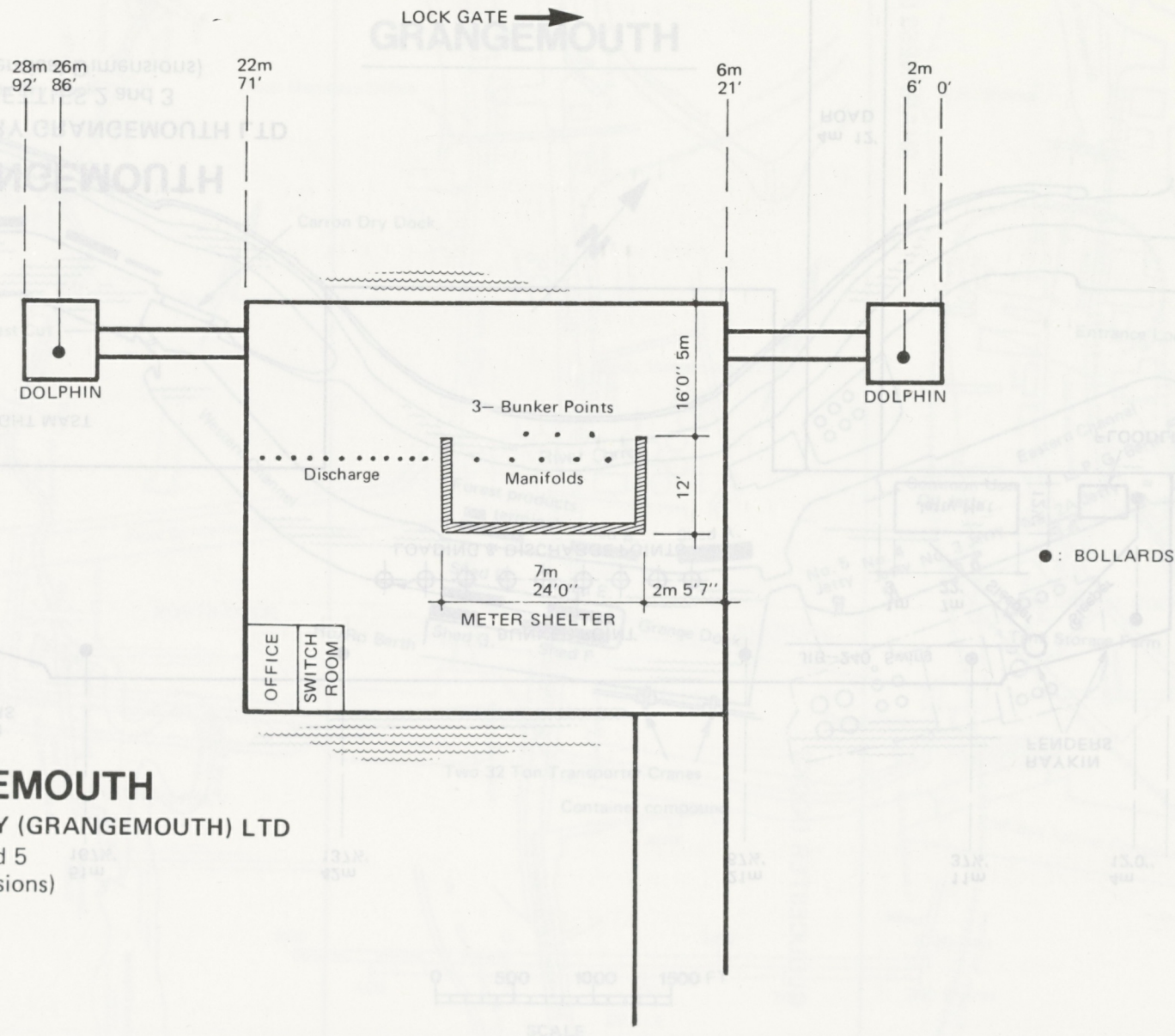
**GRANGEMOUTH**  
**BP REFINERY GRANGEMOUTH LTD**  
**JETTIES 2 and 3**  
 (Identical Dimensions)

● = BOLLARDS

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**GRANGEMOUTH**  
**BP REFINERY (GRANGEMOUTH) LTD**  
**JETTIES 4 and 5**  
 'Identical Dimensions)





# GRANGEMOUTH

BP OIL GRANGEMOUTH REFINERY LTD  
LPG LOADING BERTH

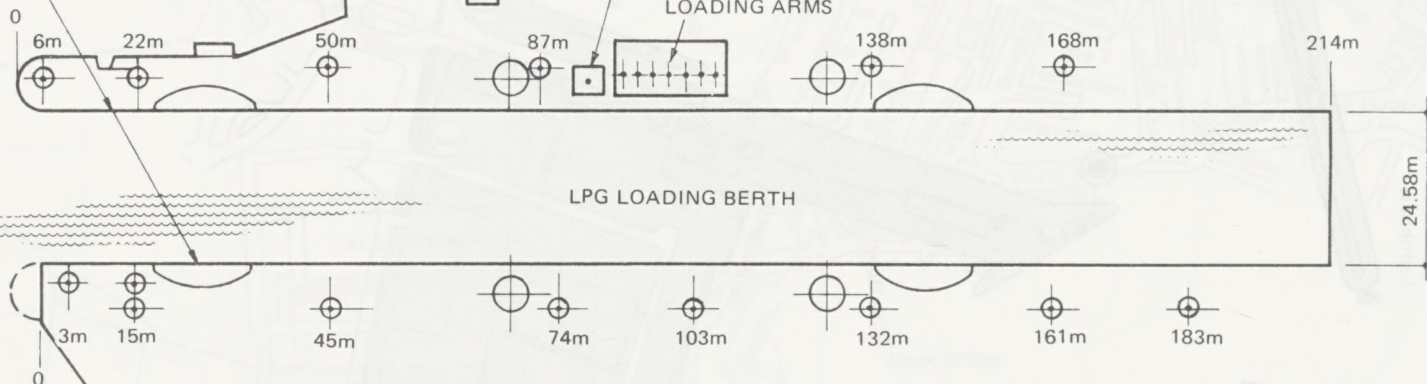


GOODYEAR RUBBER FENDERS  
ALONG BOTH WALLS

CONTROL ROOM

STORES CRANE

LOADING ARMS



LPG LOADING BERTH

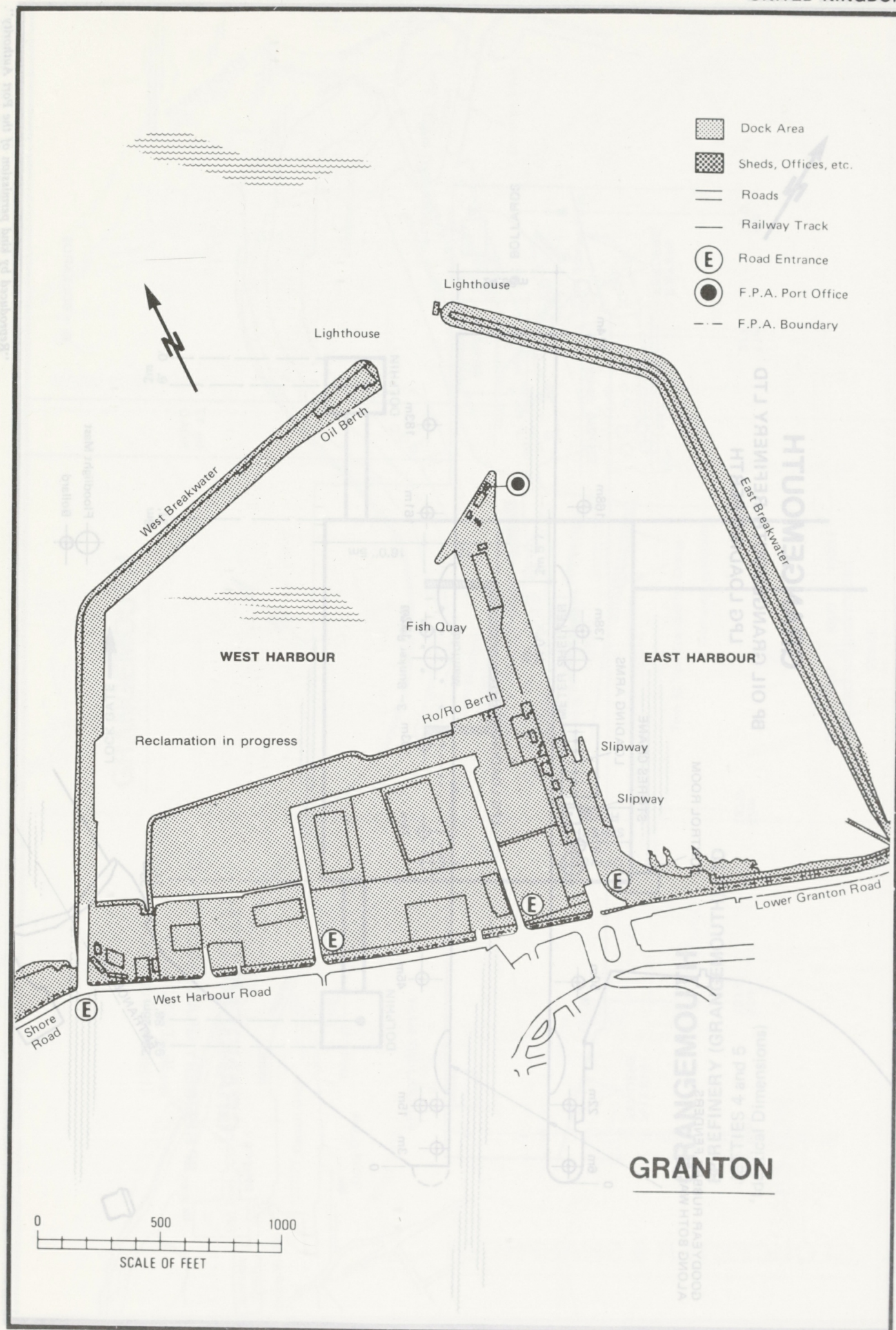
ENTRANCE LOCK

- Floodlight Mast
- Bollard

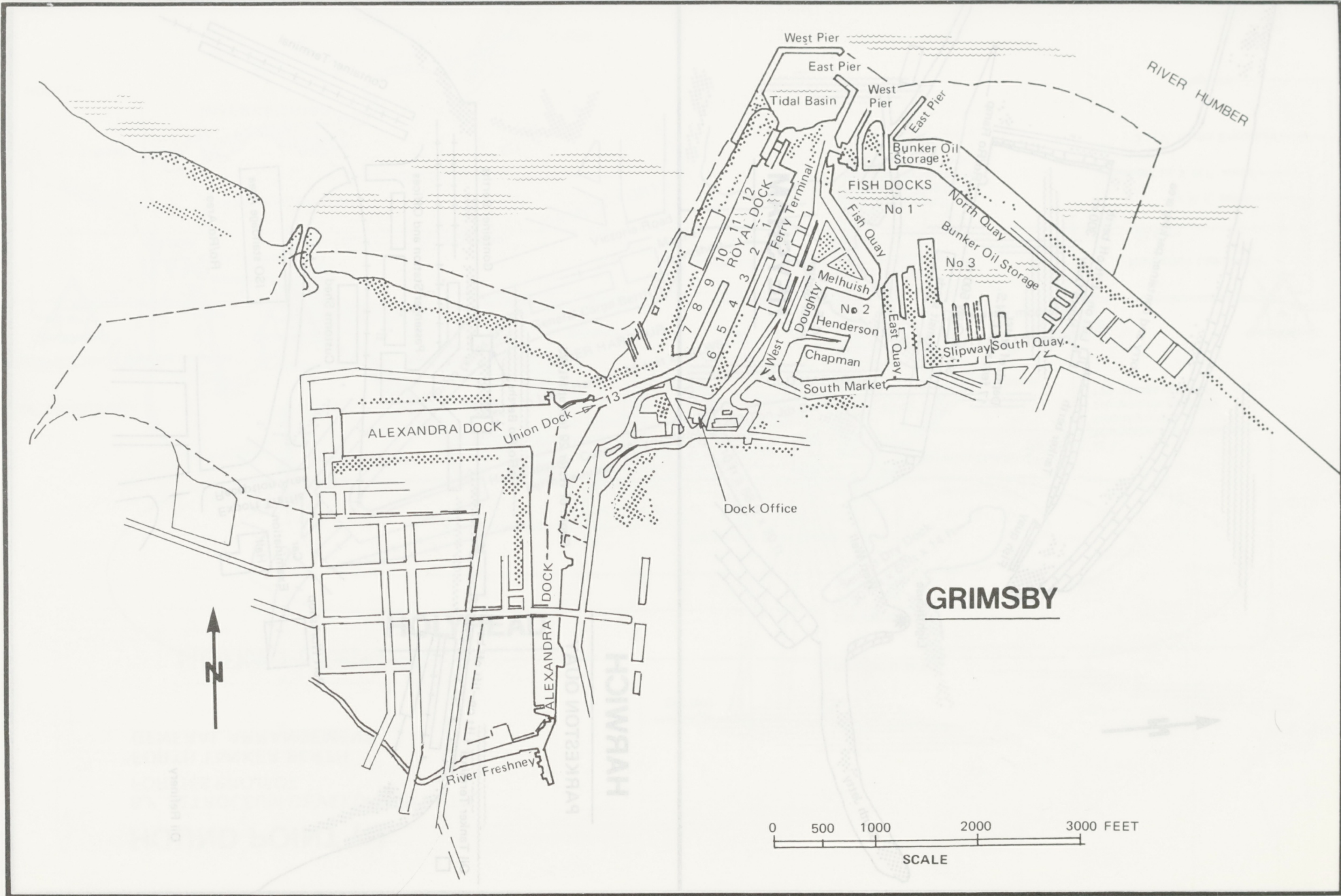
SCALE

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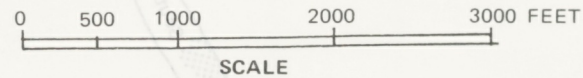






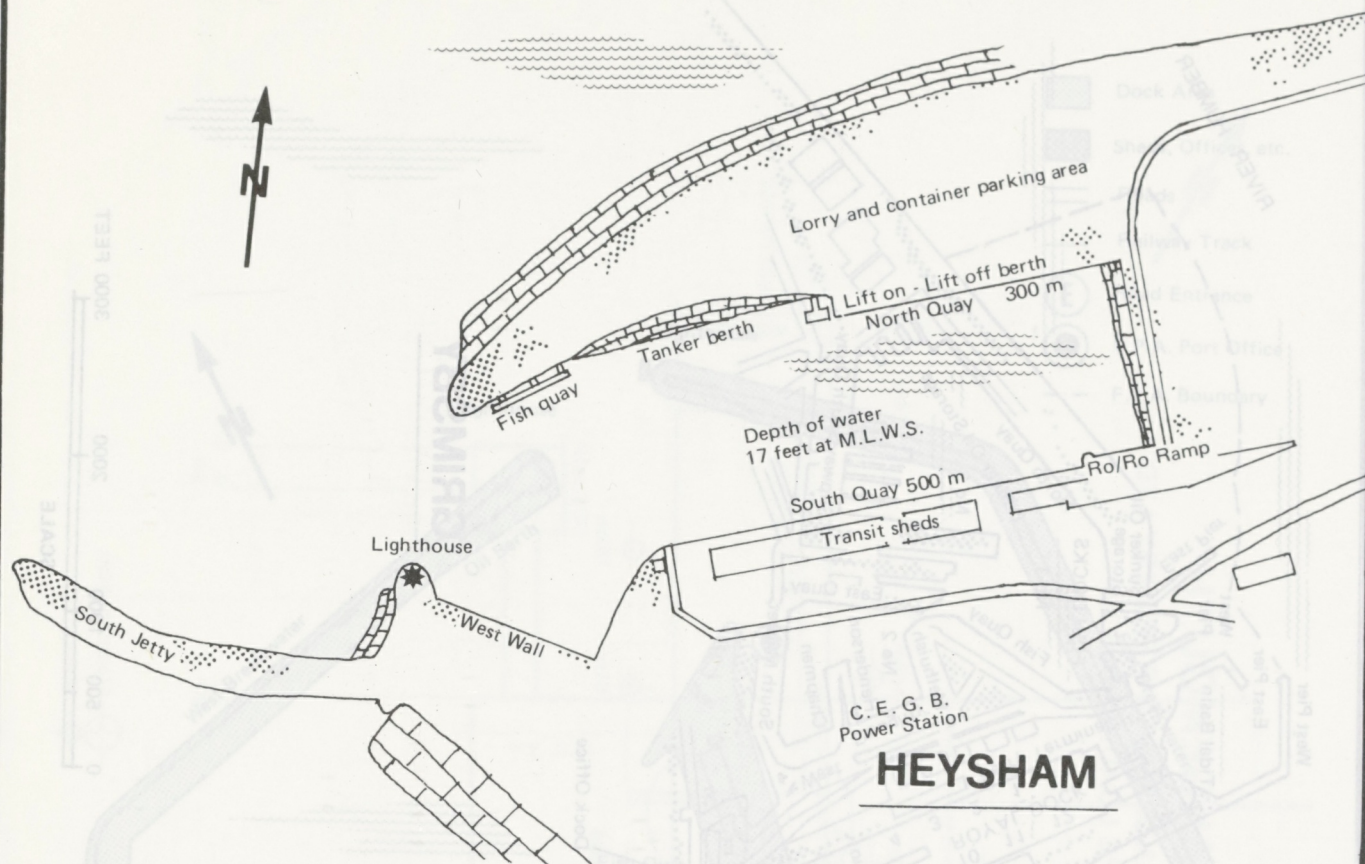


# GRIMSBY



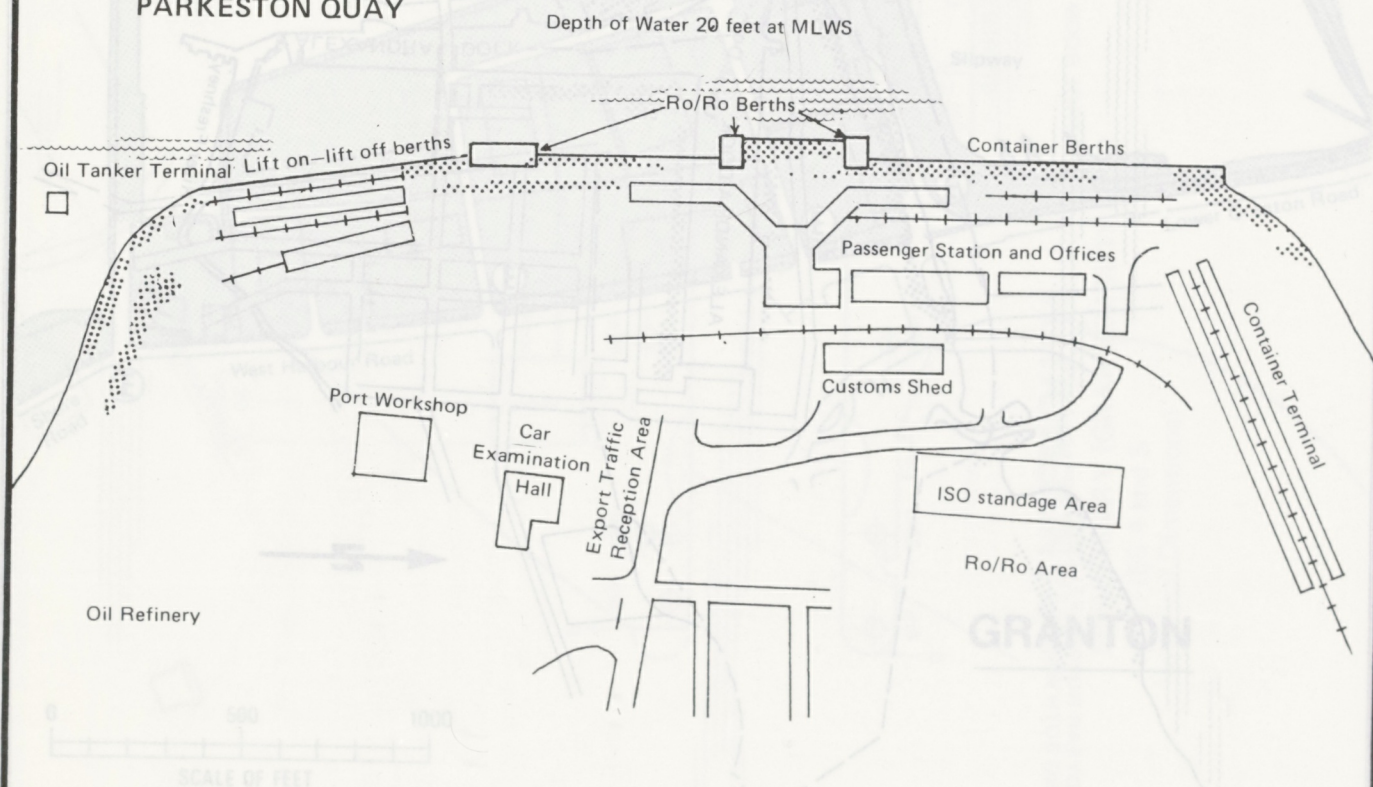
"Reproduced by kind permission of the Port Authority".



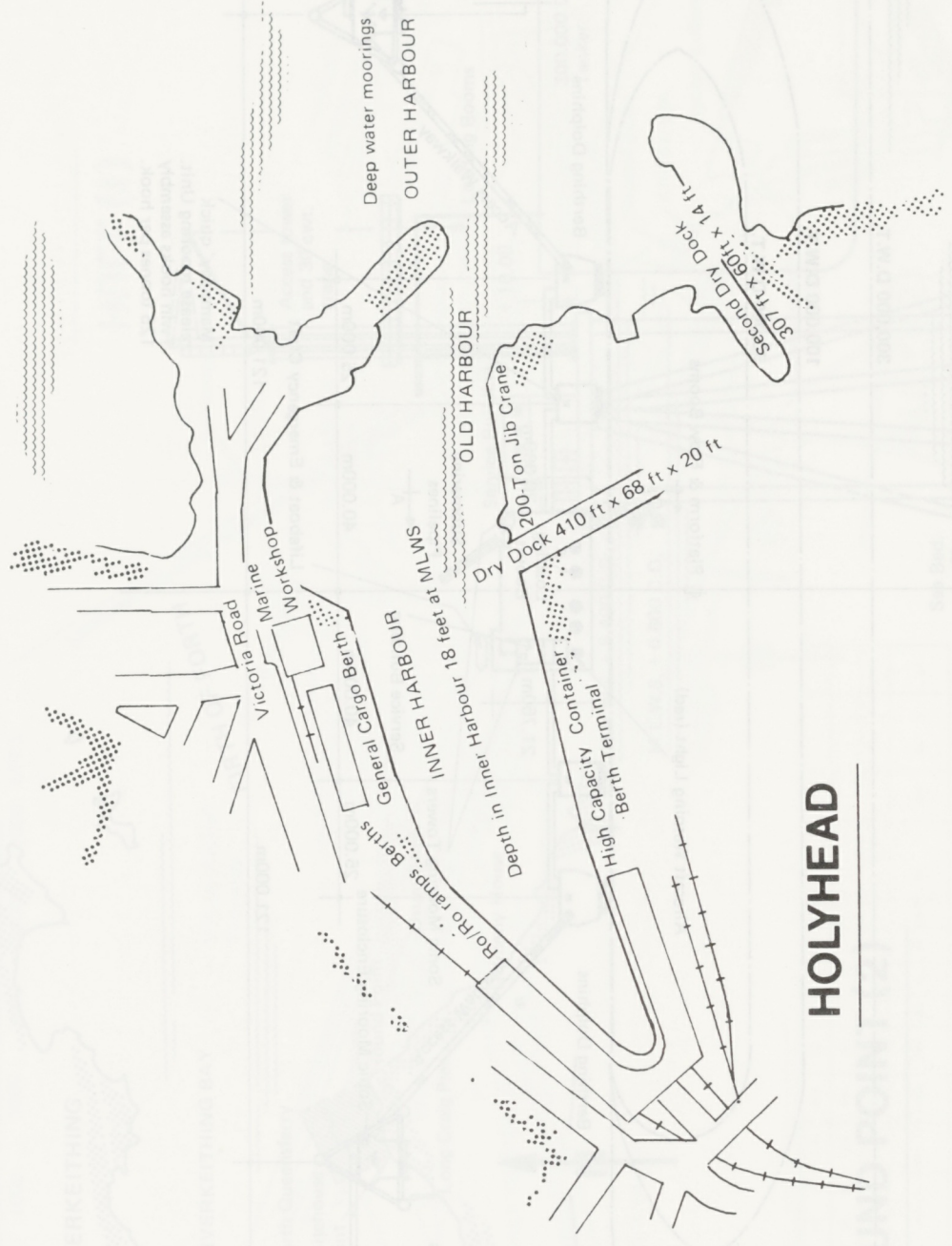


## HARWICH

### PARKESTON QUAY







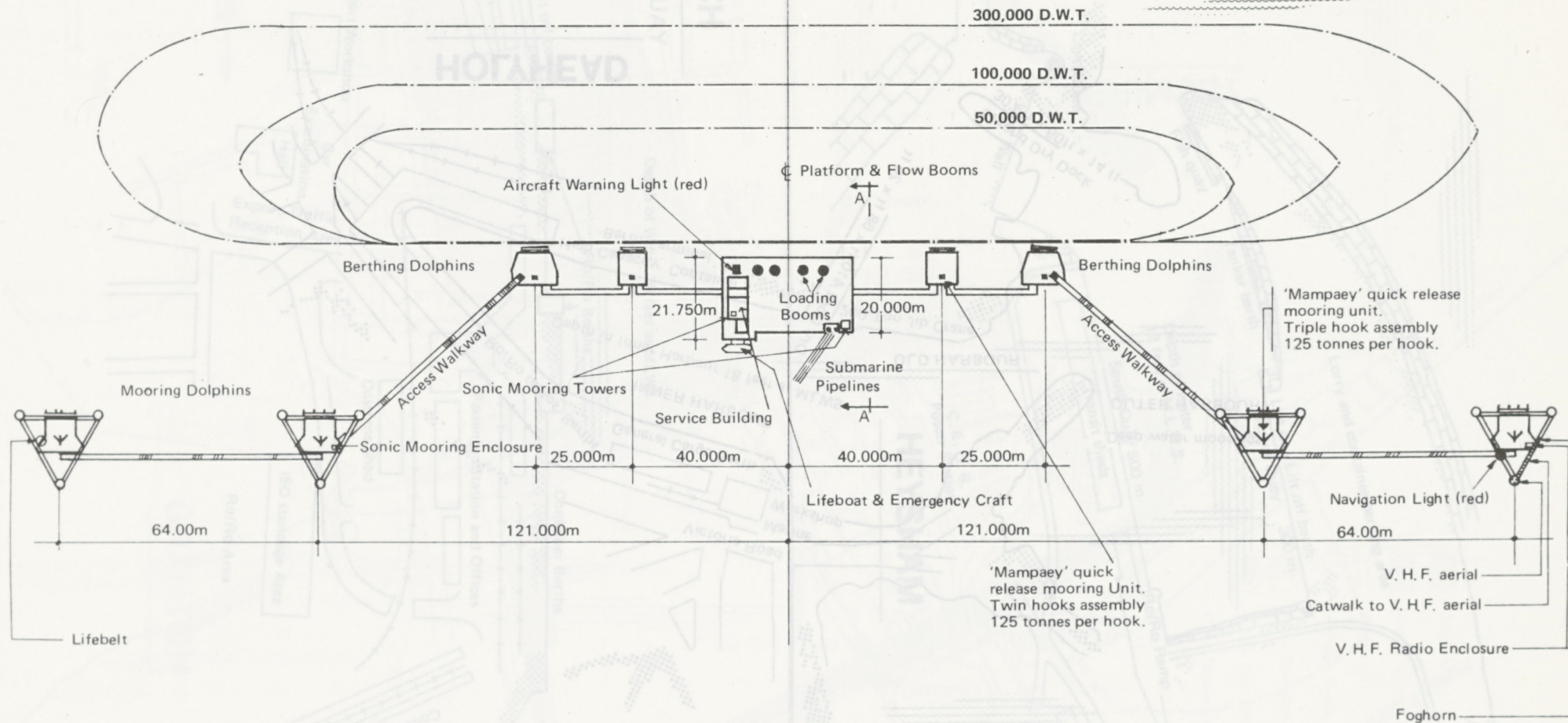
# HOLYHEAD



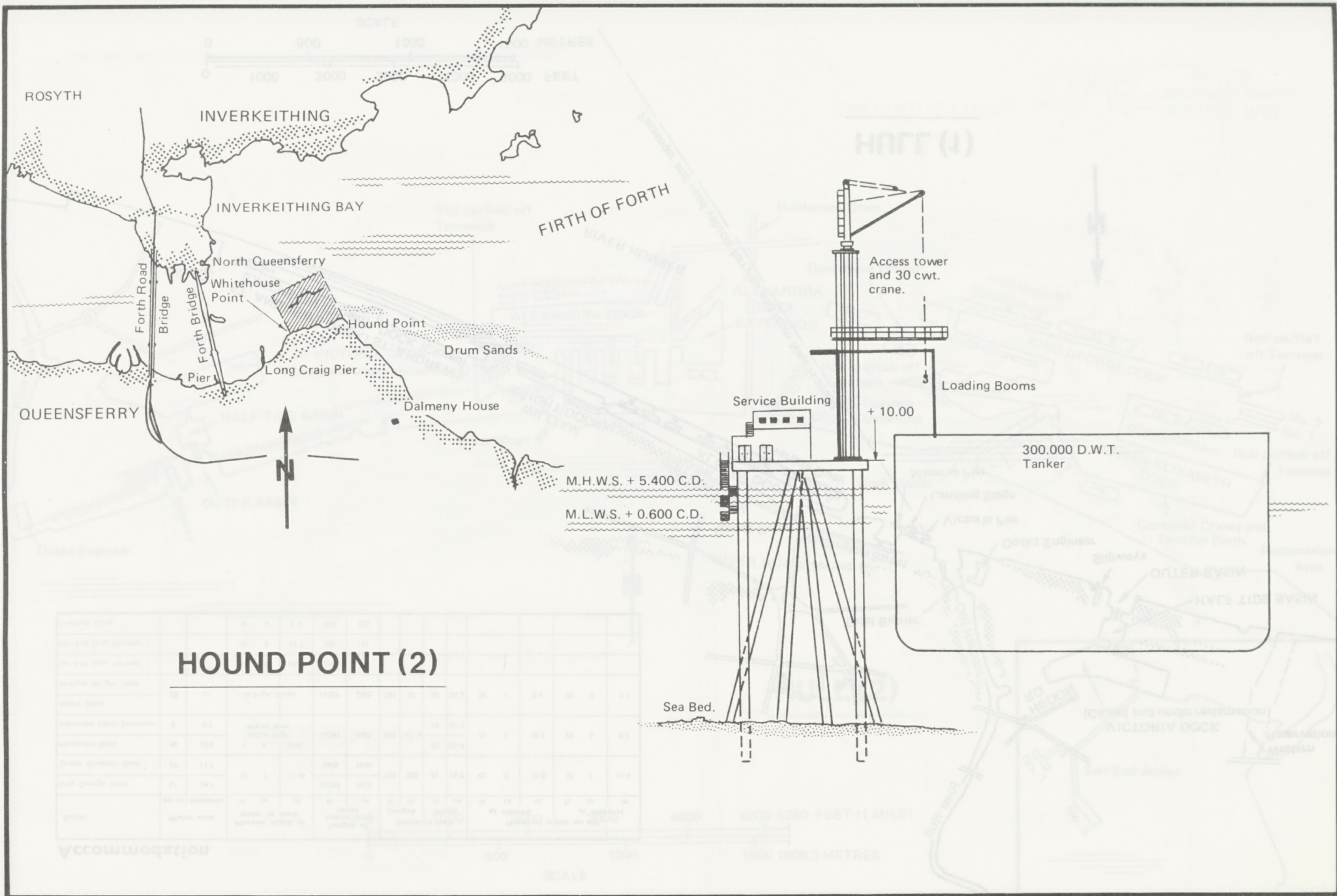
# HOUND POINT (1)

B.P. PETROLEUM DEVELOPMENT LTD.  
FORTIES PROJECT

FORTH TANKER BERTH  
GENERAL ARRANGEMENT





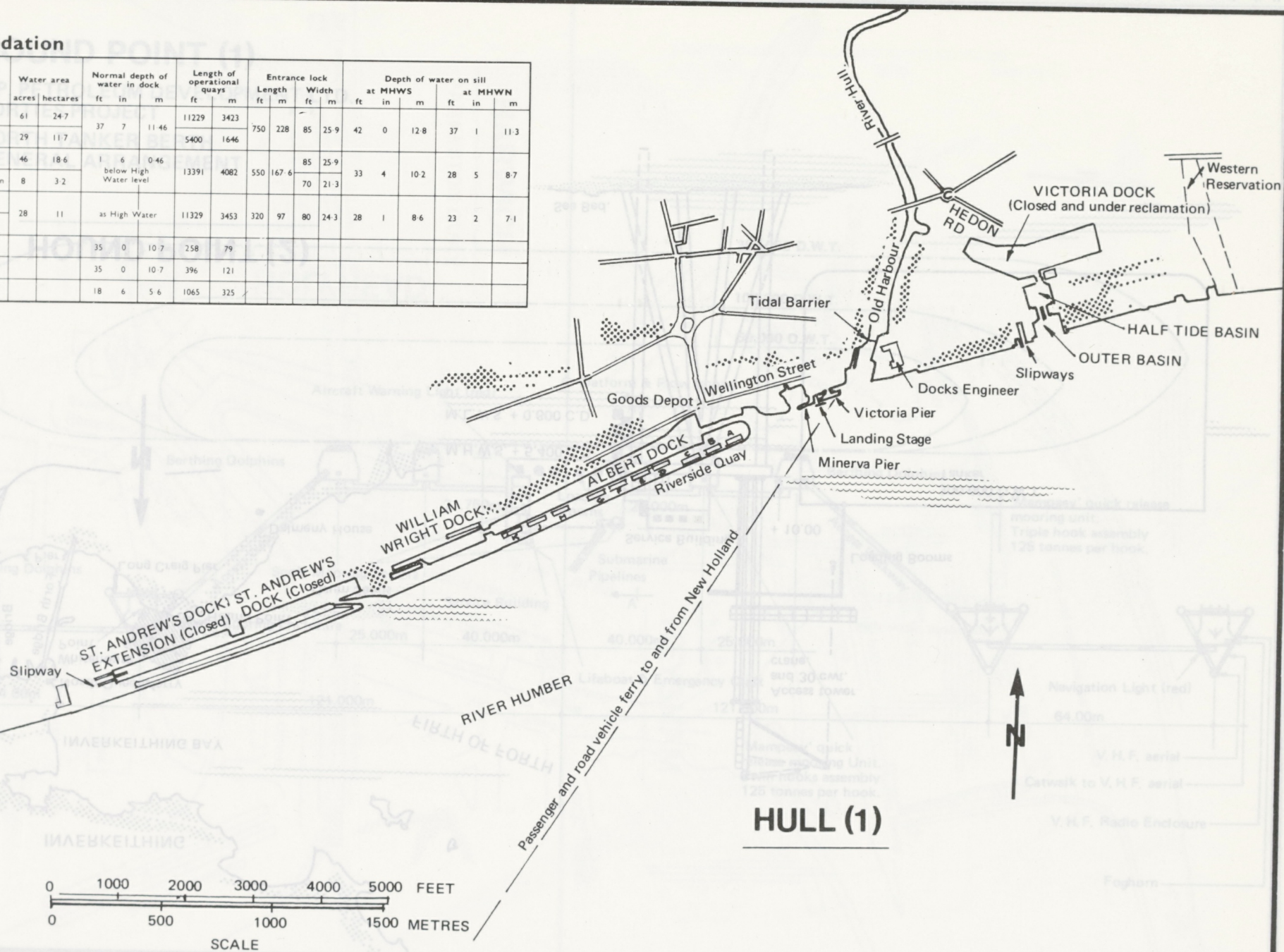


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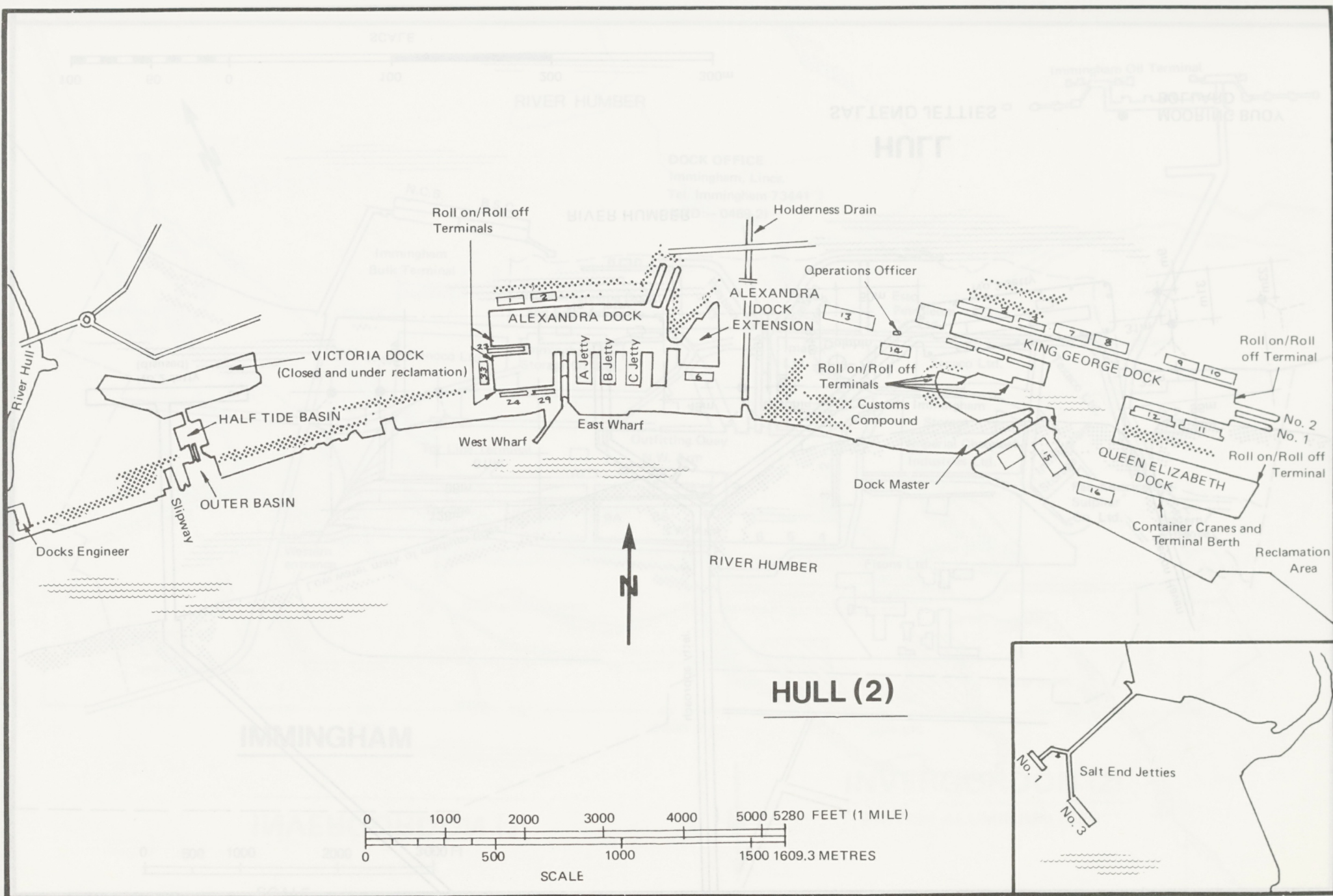
## Accommodation

Docks	Water area		Normal depth of water in dock			Length of operational quays		Entrance lock				Depth of water on sill					
	acres	hectares	ft	in	m	ft	m	Length		Width		at MHWS			at MHWN		
King George Dock	61	24.7	37	7	11.46	11229	3423	750	228	85	25.9	42	0	12.8	37	1	11.3
Queen Elizabeth Dock	29	11.7				5400	1646										
Alexandra Dock	46	18.6	1	6	0.46	13391	4082	550	167.6	85	25.9	33	4	10.2	28	5	8.7
Alexandra Dock Extension	8	3.2	below High Water level		70					21.3							
Albert Dock	28	11	as High Water			11329	3453	320	97	80	24.3	28	1	8.6	23	2	7.1
William Wright Dock																	
Salt End Jetty Number 1			35	0	10.7	258	79										
Salt End Jetty Number 3			35	0	10.7	396	121										
Riverside Quay			18	6	5.6	1065	325										

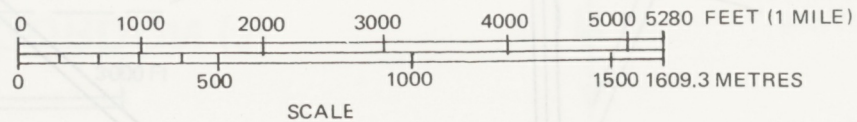


HULL (1)



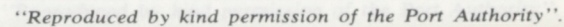


## HULL (2)



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RIVER HUMBER

**DOCK OFFICE**

Immingham, Lincs.

Tel. Immingham 73441

(STD:- 0469-2)

Immingham Oil Terminal

N.C.B.

B.S.C.

Immingham  
Bulk Terminal

Humber Graving Dock  
and Engineering Co.

Western  
jetty

Eastern  
jetty

Esso  
Petroleum  
Co. Ltd.

Conoco Ltd.

Immingham  
Storage Co. Ltd.

Imatex  
Ltd.

Texaco Ltd.

Tor Line Terminal

Outfitting Quay  
N.W. Arm

1

Immingham  
Storage  
Imperial Chemical  
Industries Ltd.

Texaco Ltd.  
Immingham  
Storage

I.O.T

Tor line

9A 9B 9C  
S.W. Arm

2

3

4

5

6

10

Western  
entrance

Fisons Ltd.

Pan-American  
Sulphur  
Co. Ltd.

Eastern  
entrance

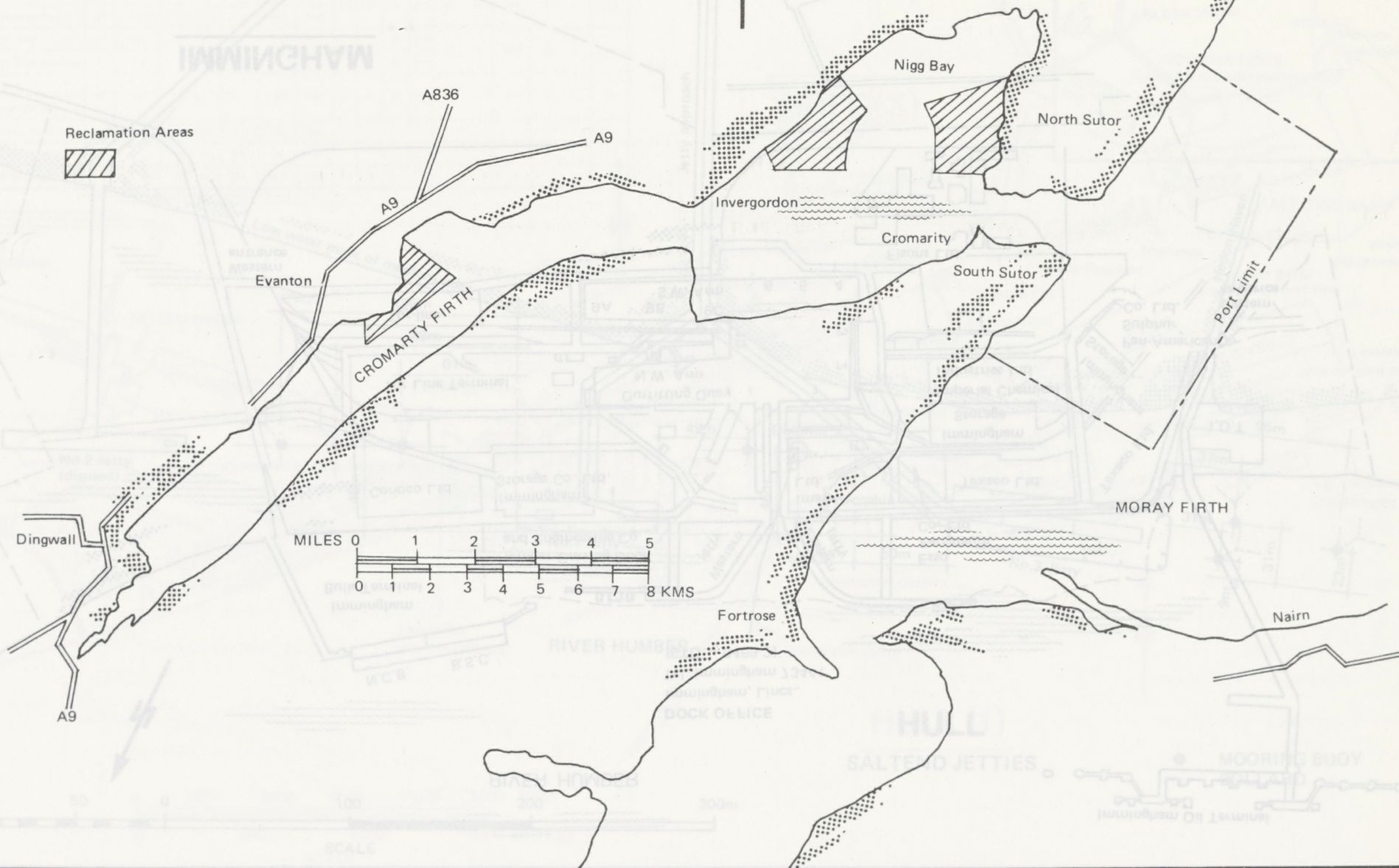
**IMMINGHAM**

0 500 1000 2000 3000 Ft

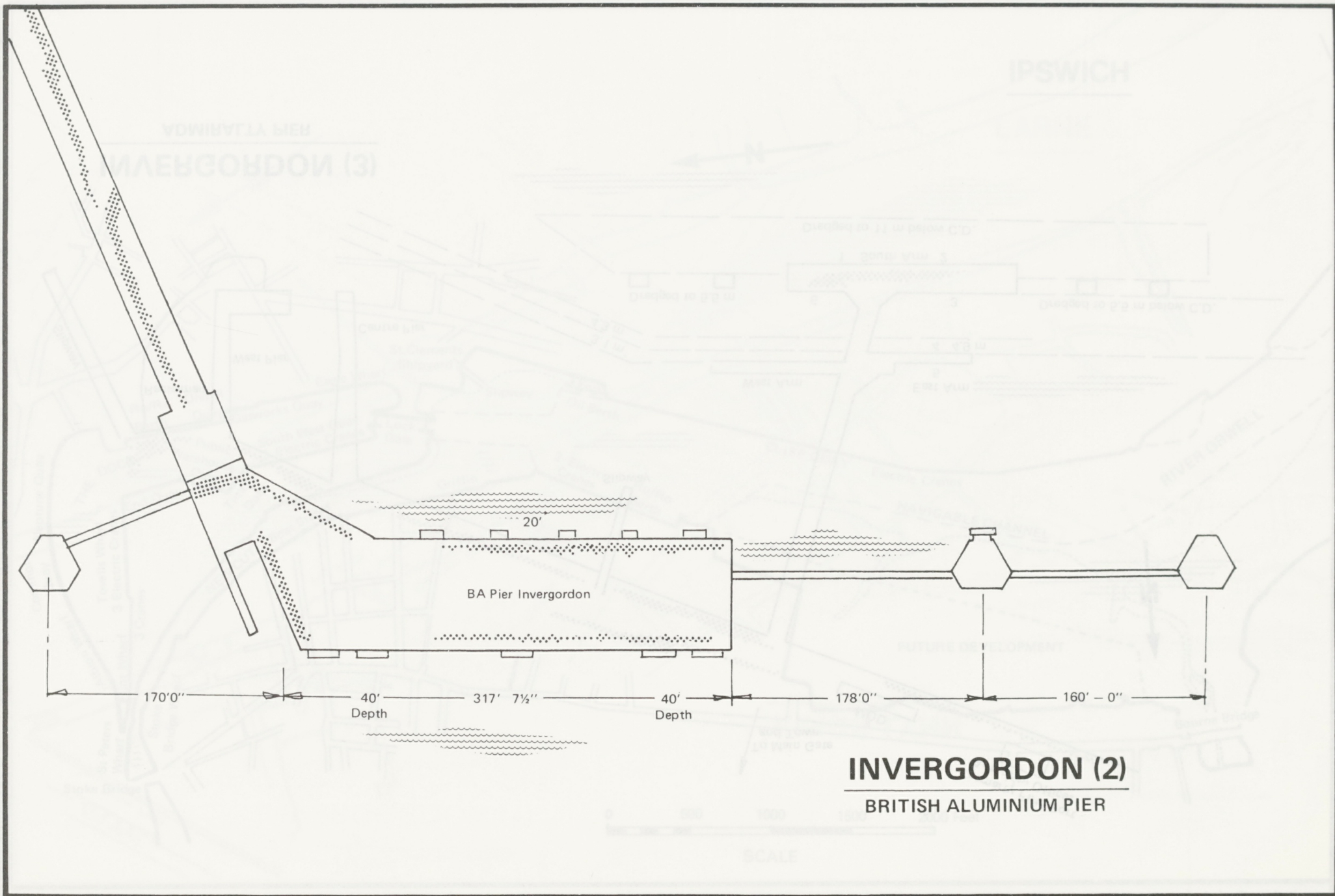
SCALE

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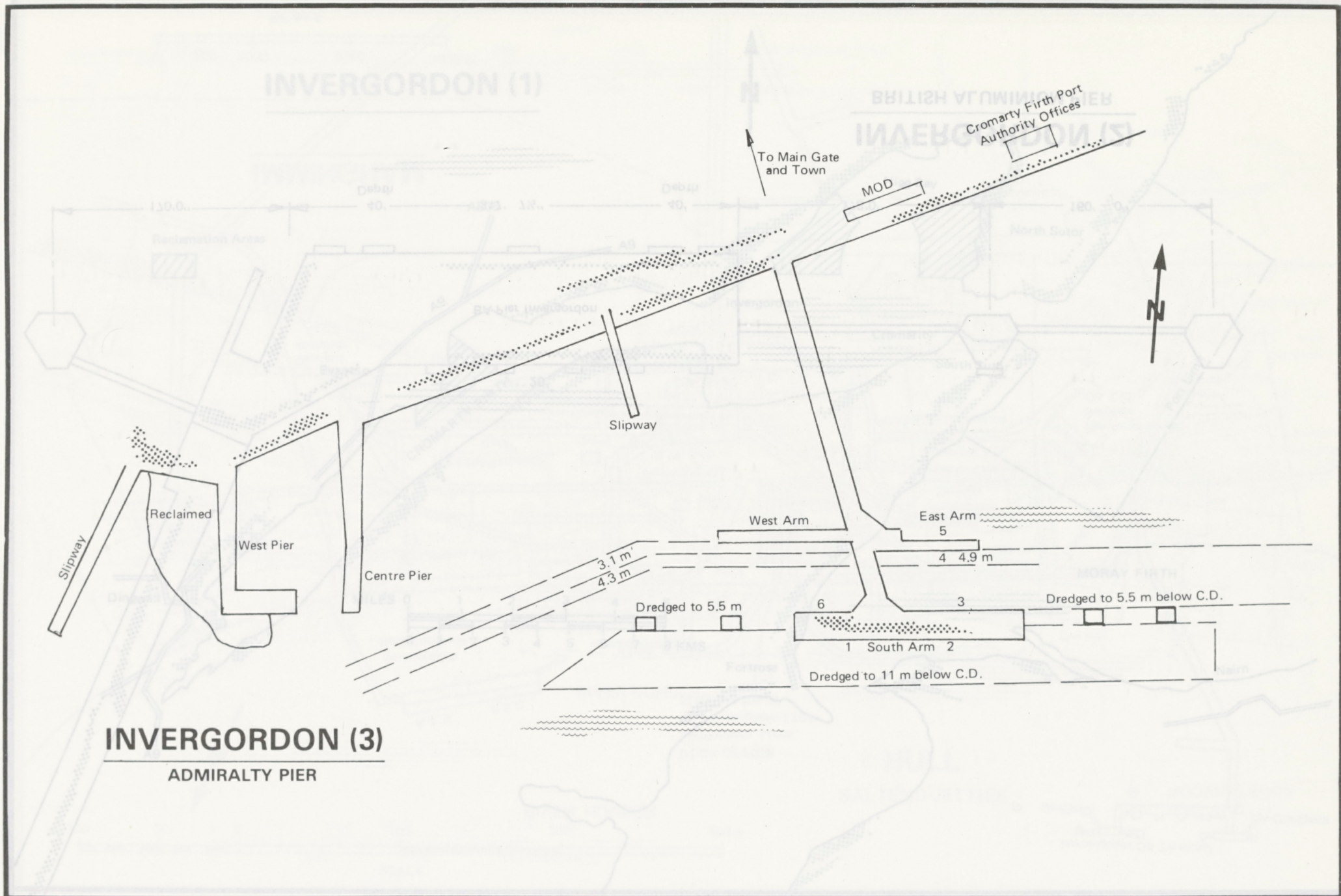






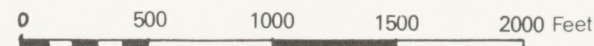
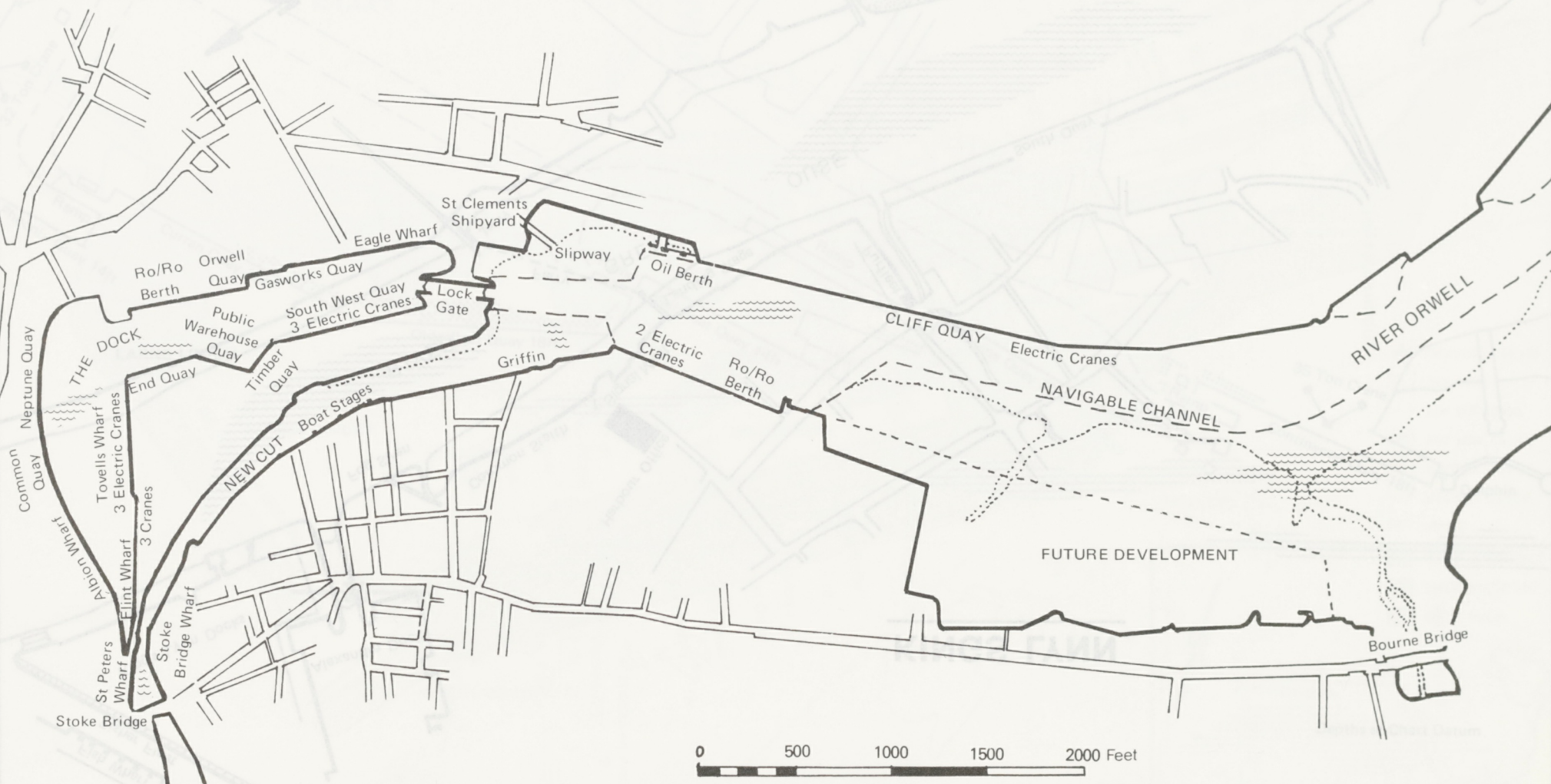
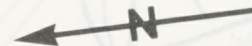
"Reproduced by kind permission of the Port Authority".







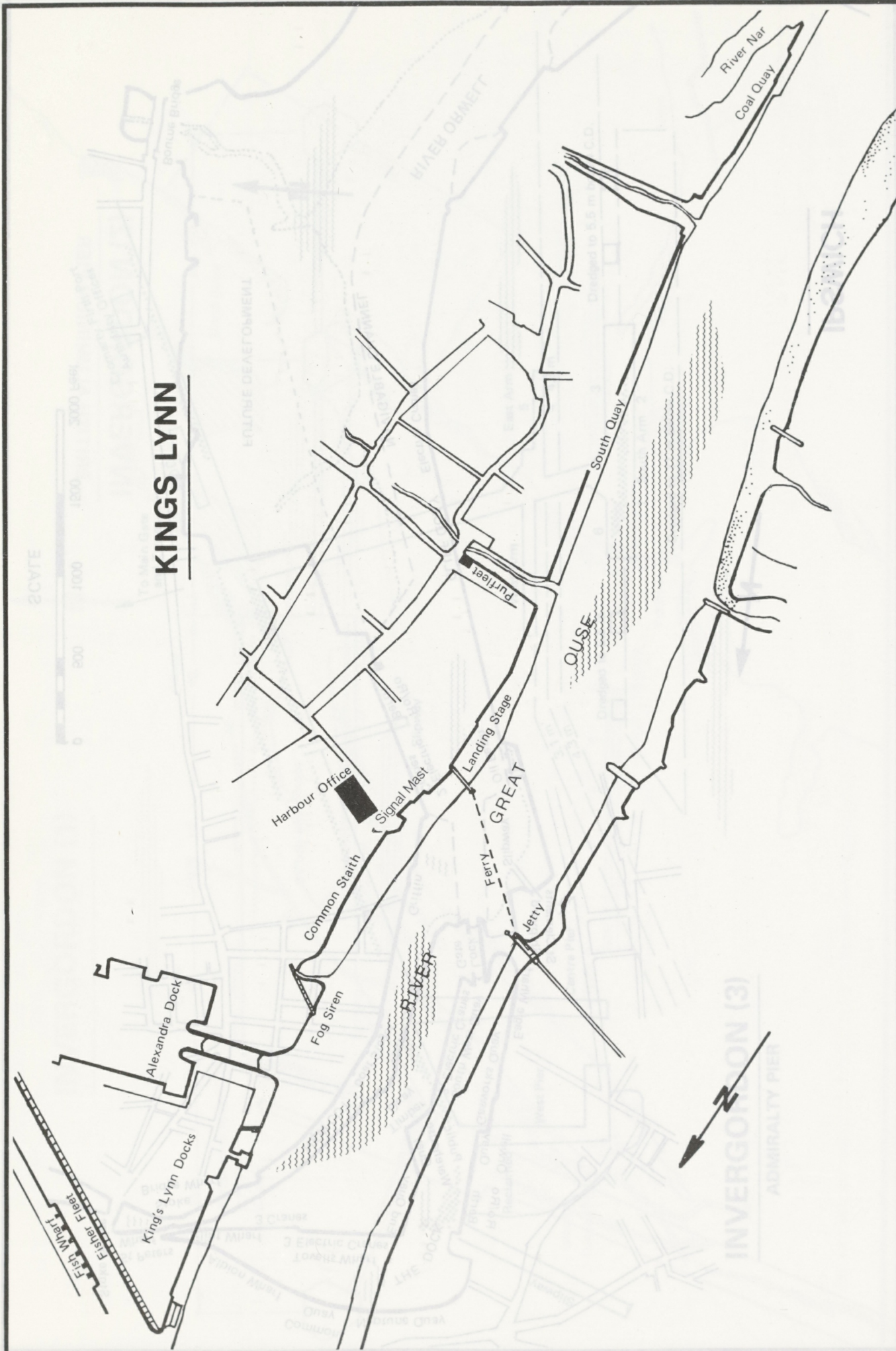
# IPSWICH



SCALE

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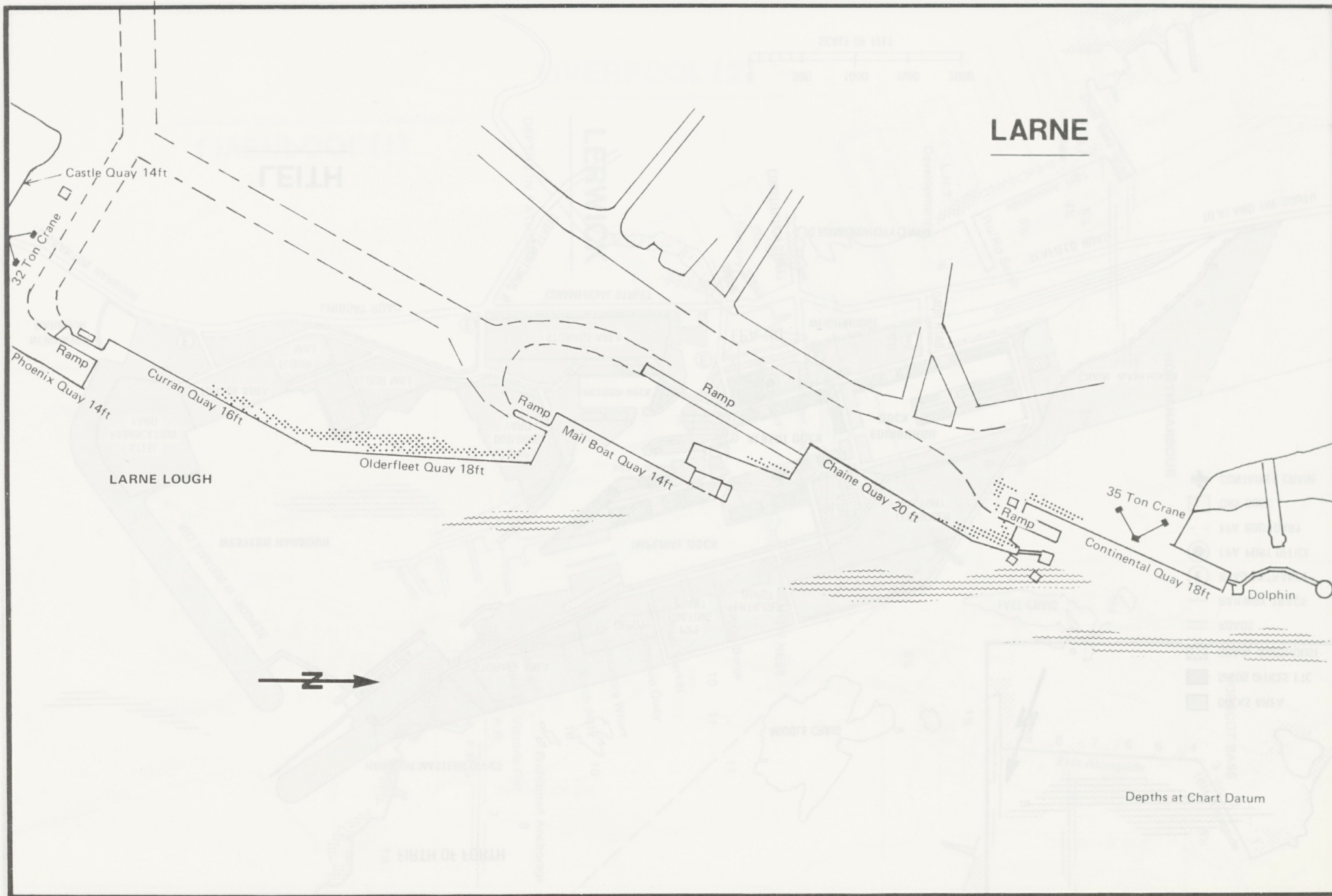




**KINGS LYNN**

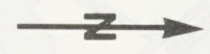
“Reproduced by kind permission of the Port Authority”





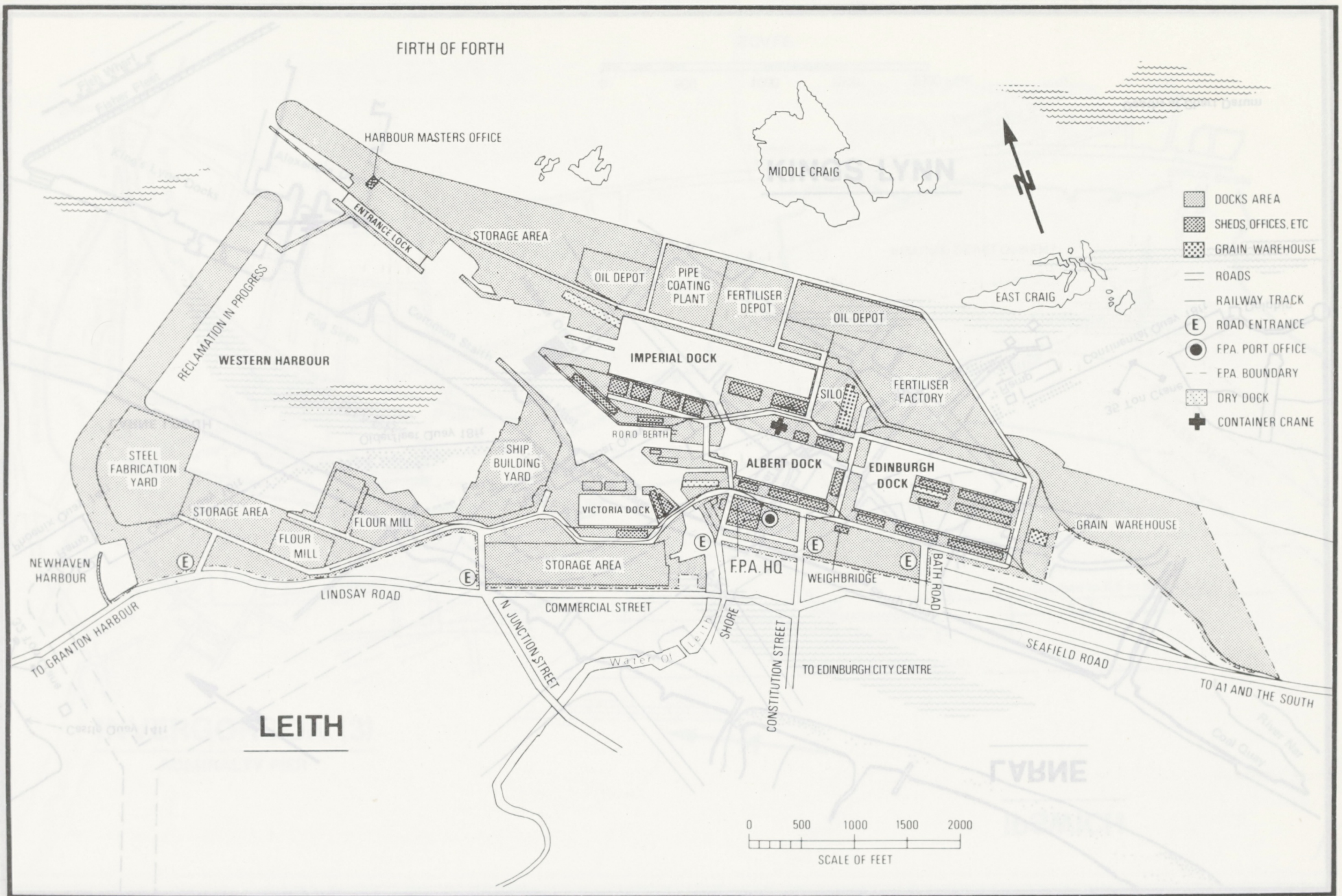
# LARNE

LARNE LOUGH

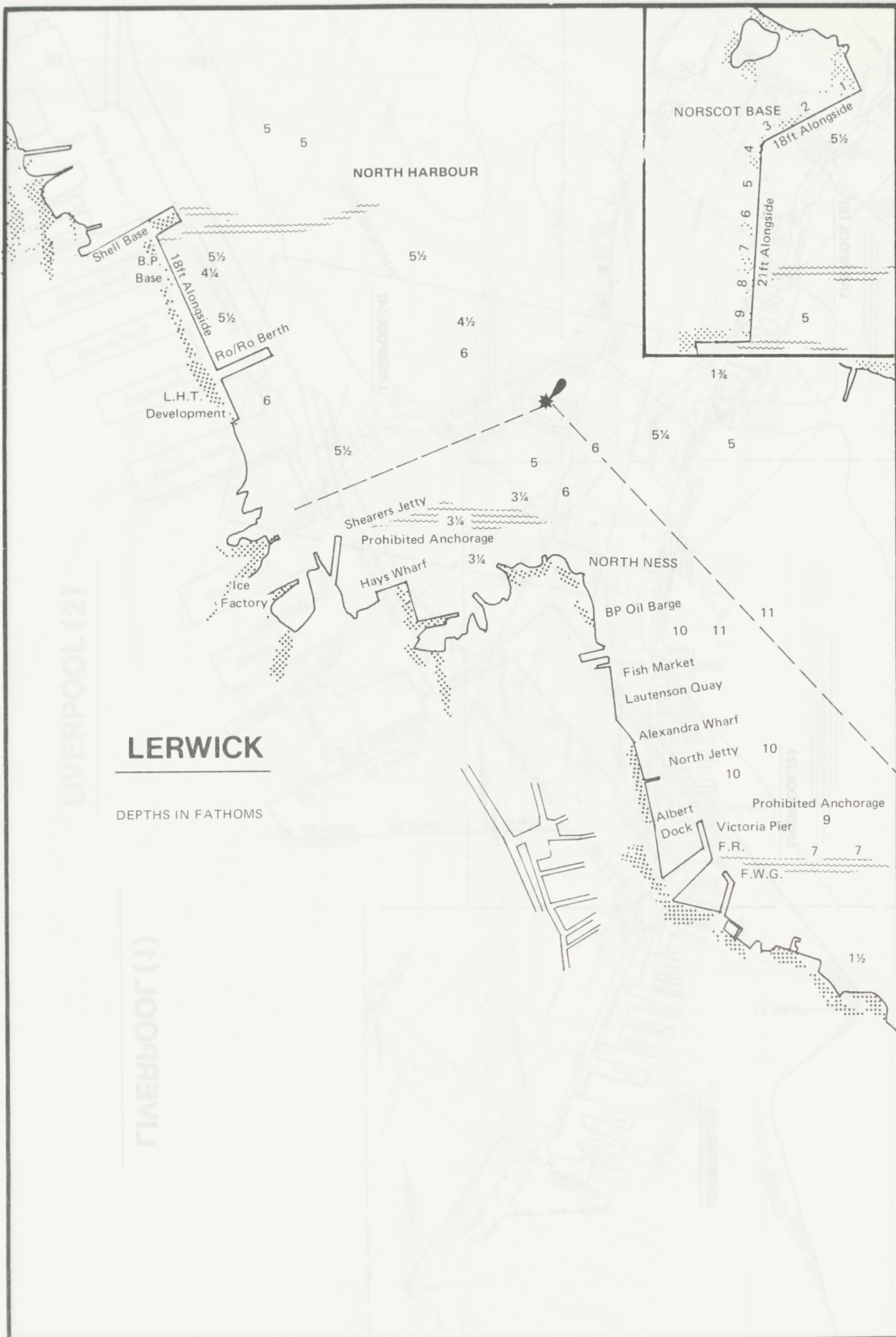


Depths at Chart Datum





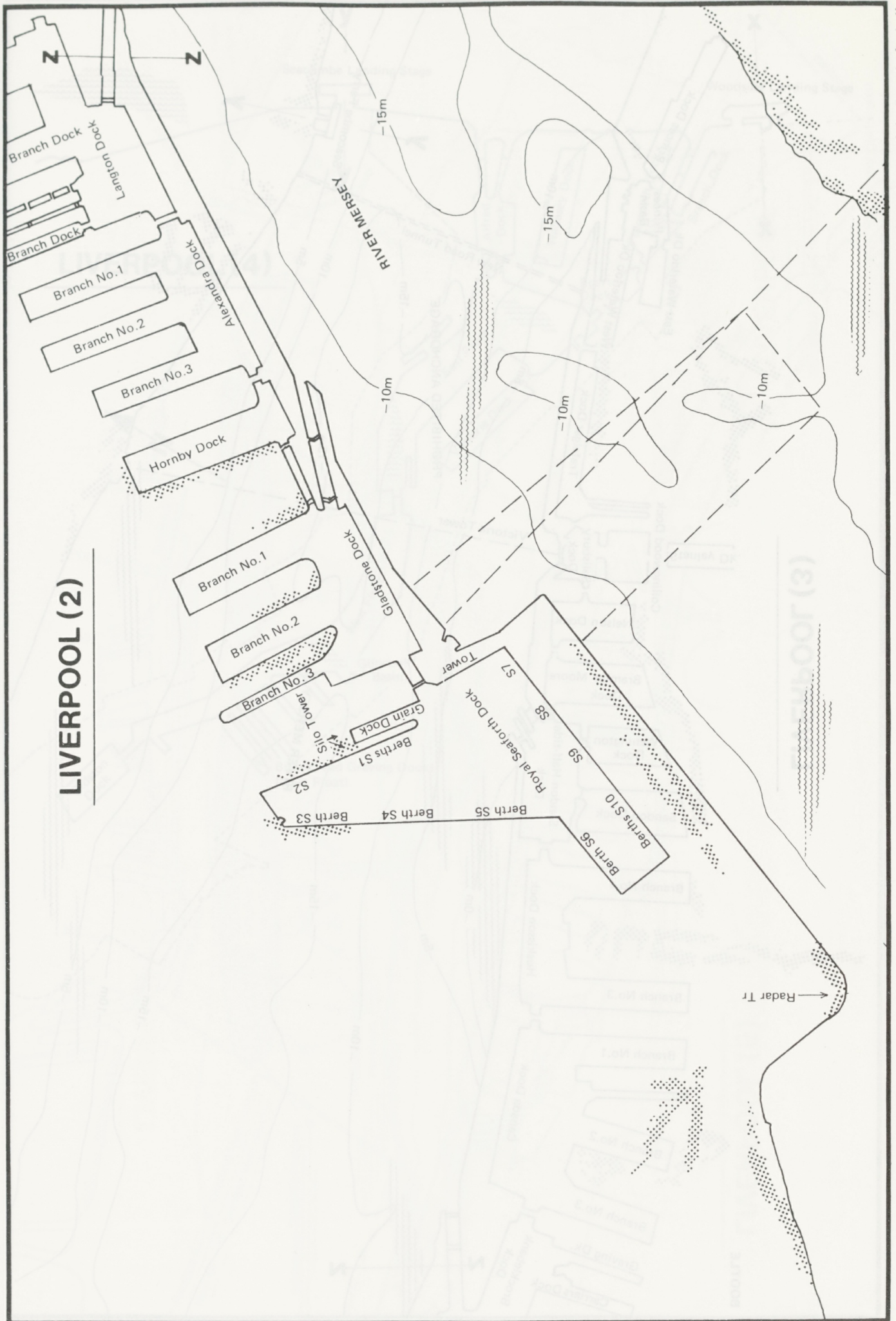












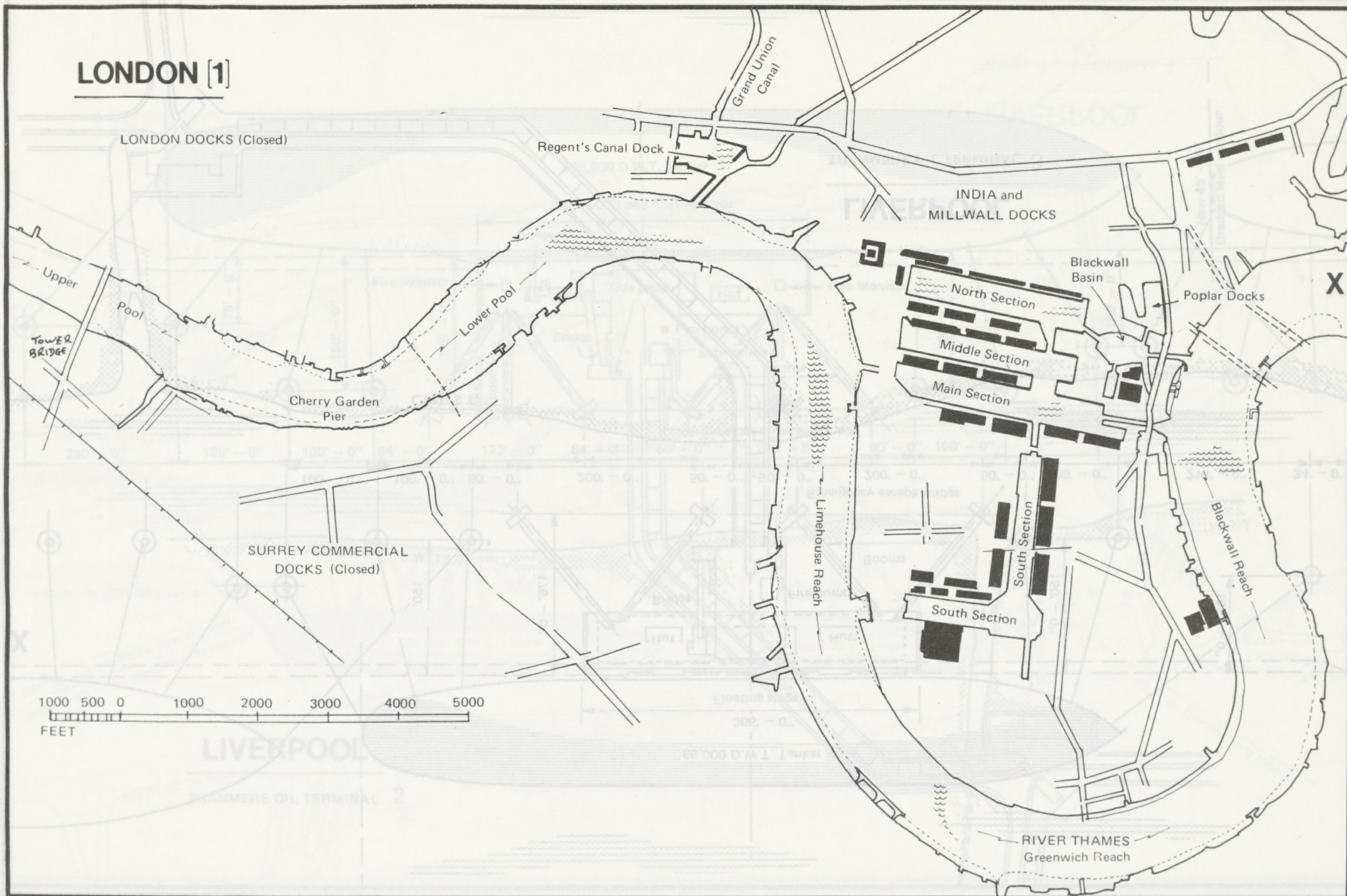
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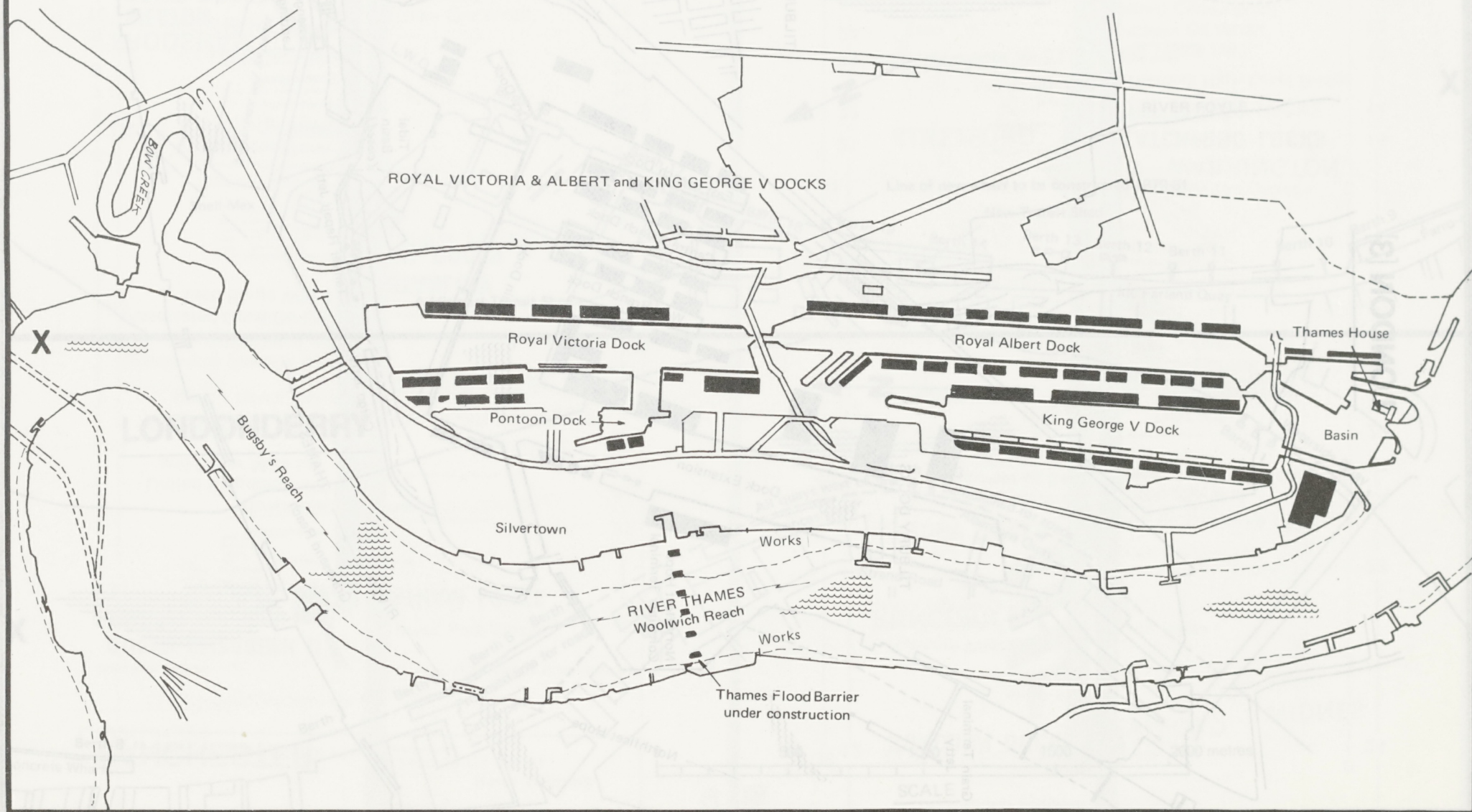


# LONDON [1]



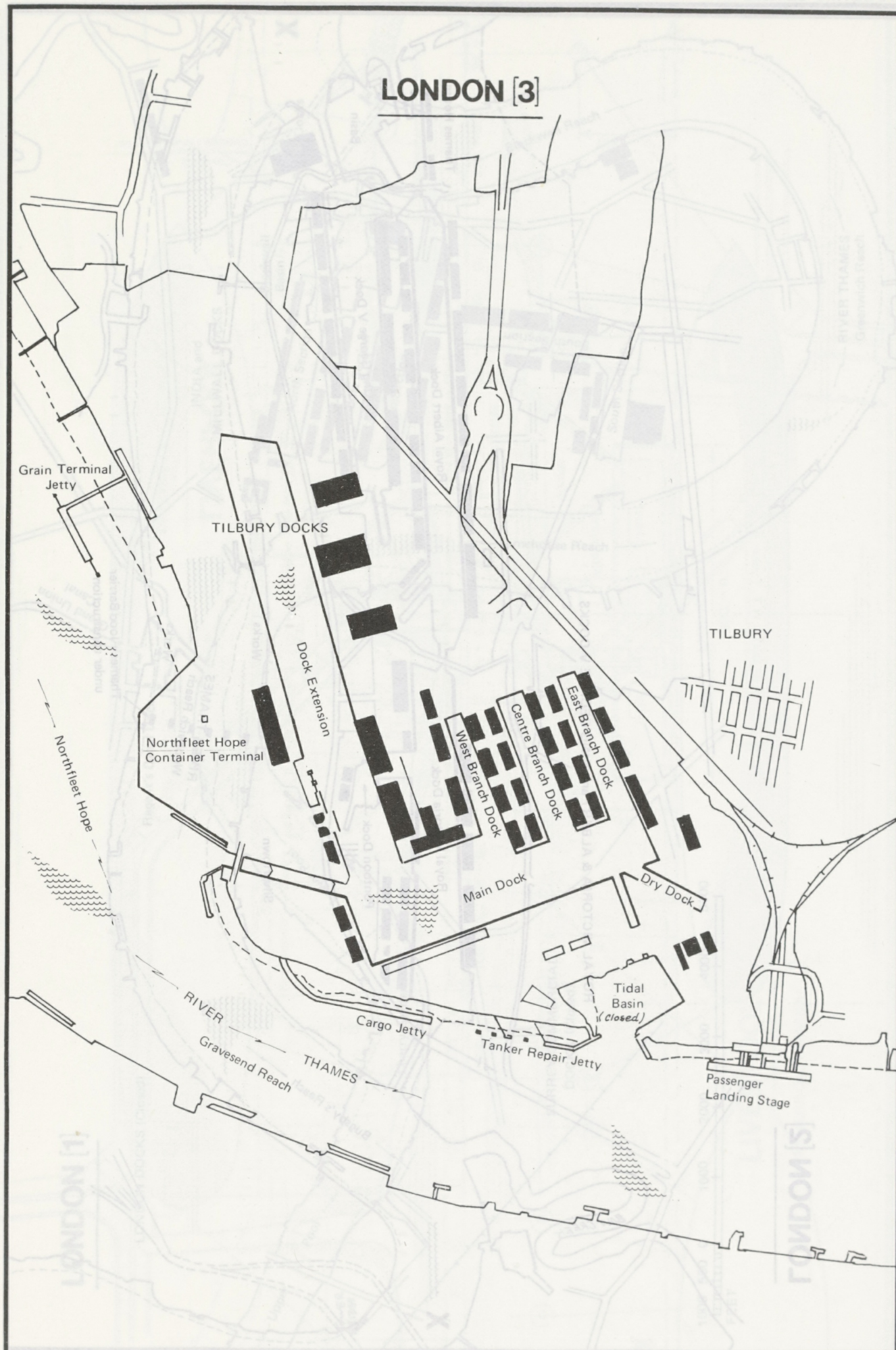


## LONDON [2]

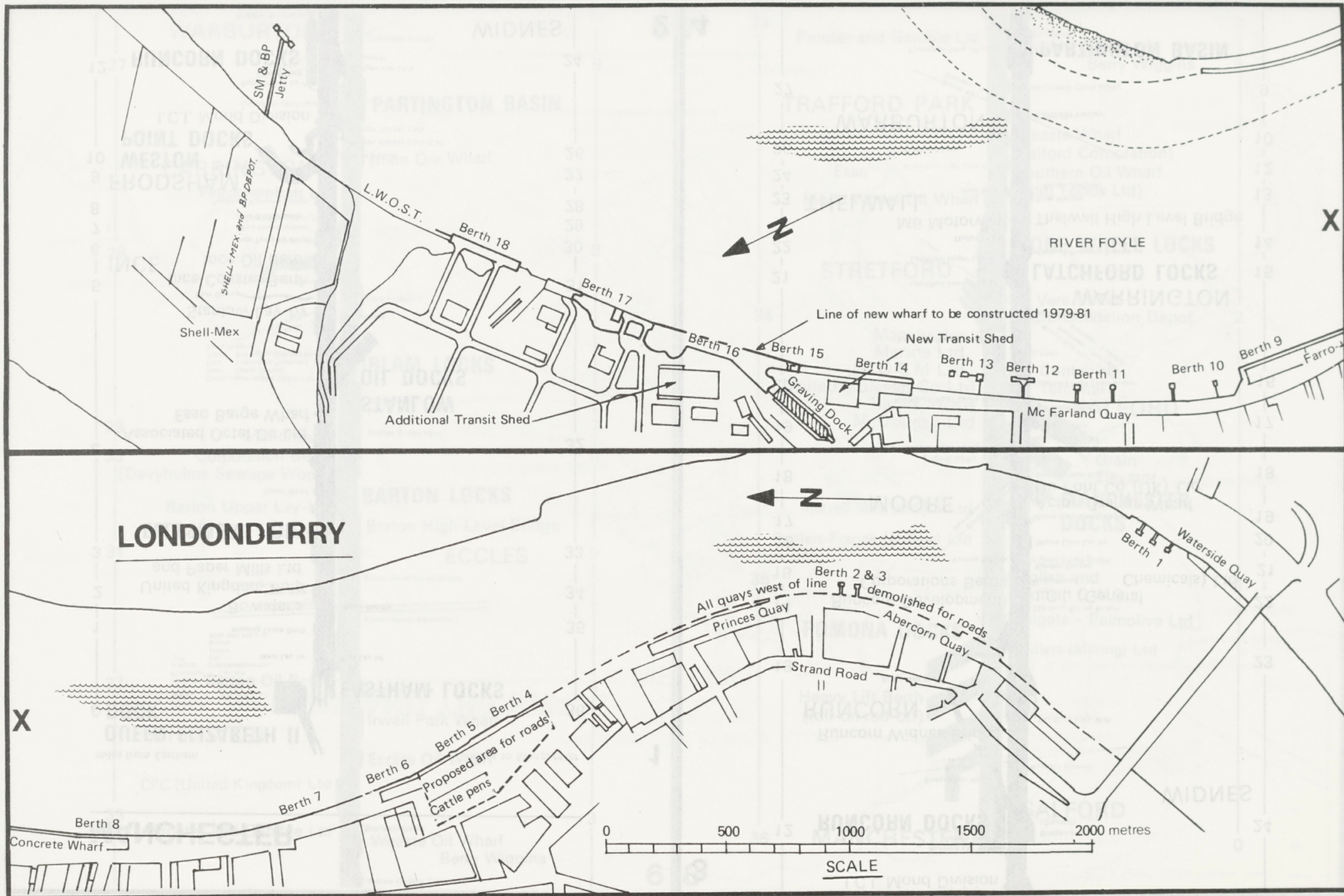




## LONDON [3]





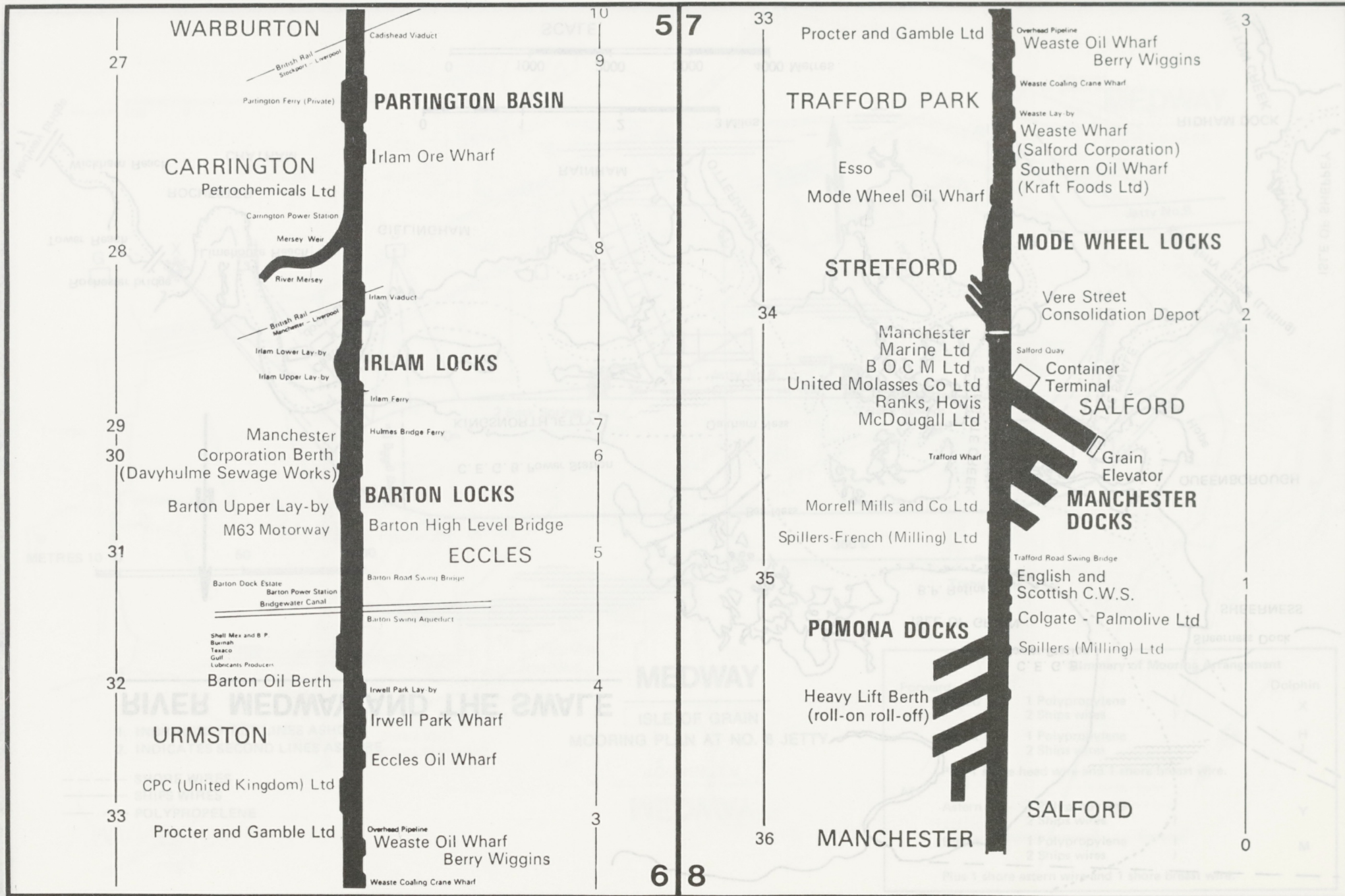


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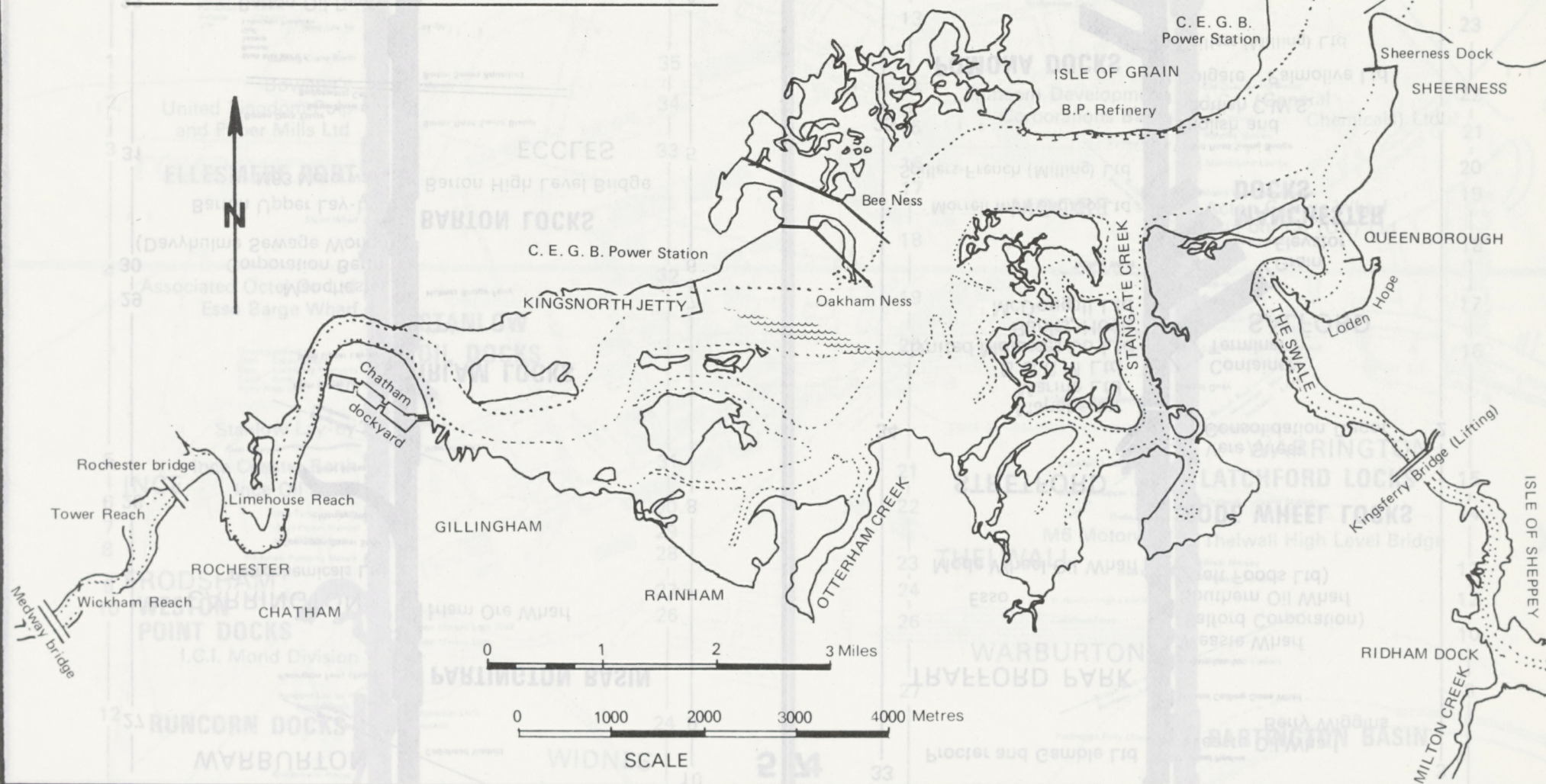




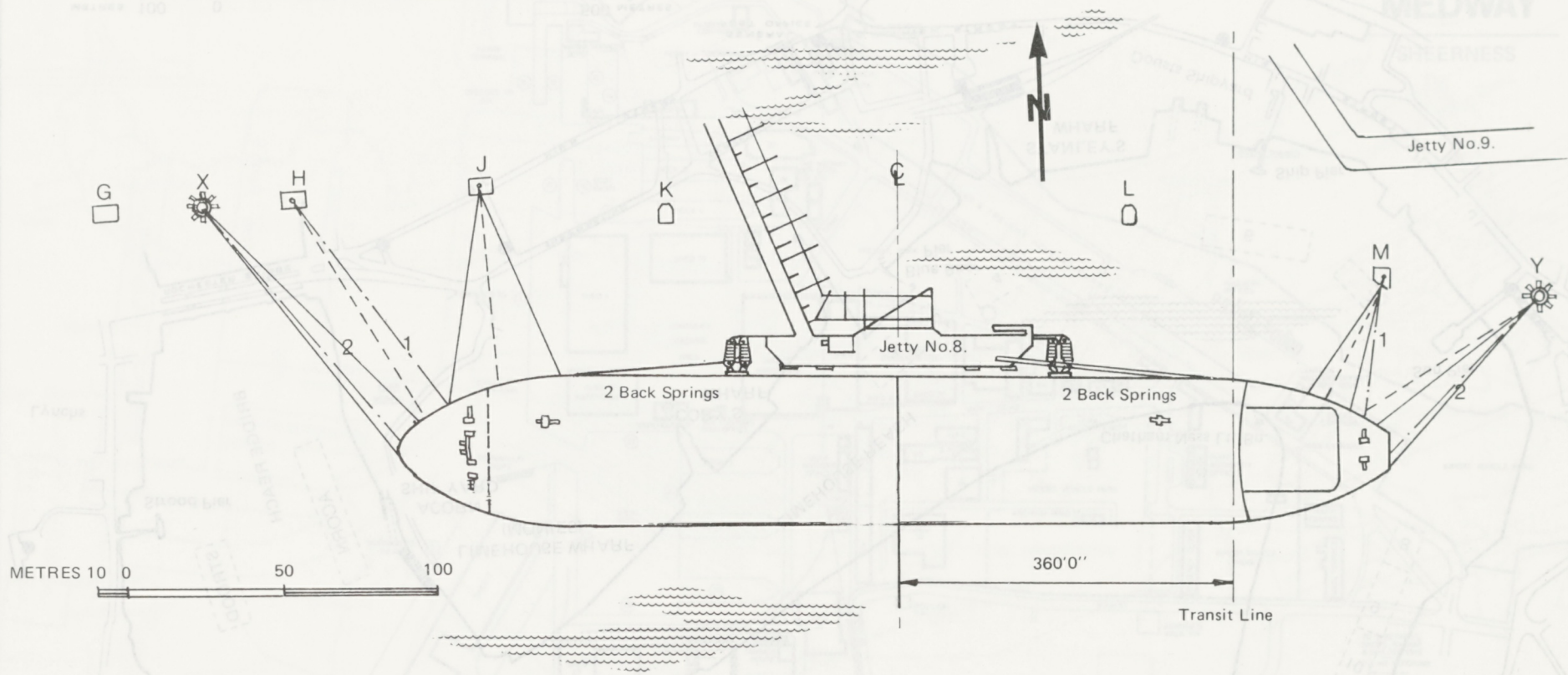




# RIVER MEDWAY AND THE SWALE







## MEDWAY

### ISLE OF GRAIN MOORING PLAN AT NO. 8 JETTY

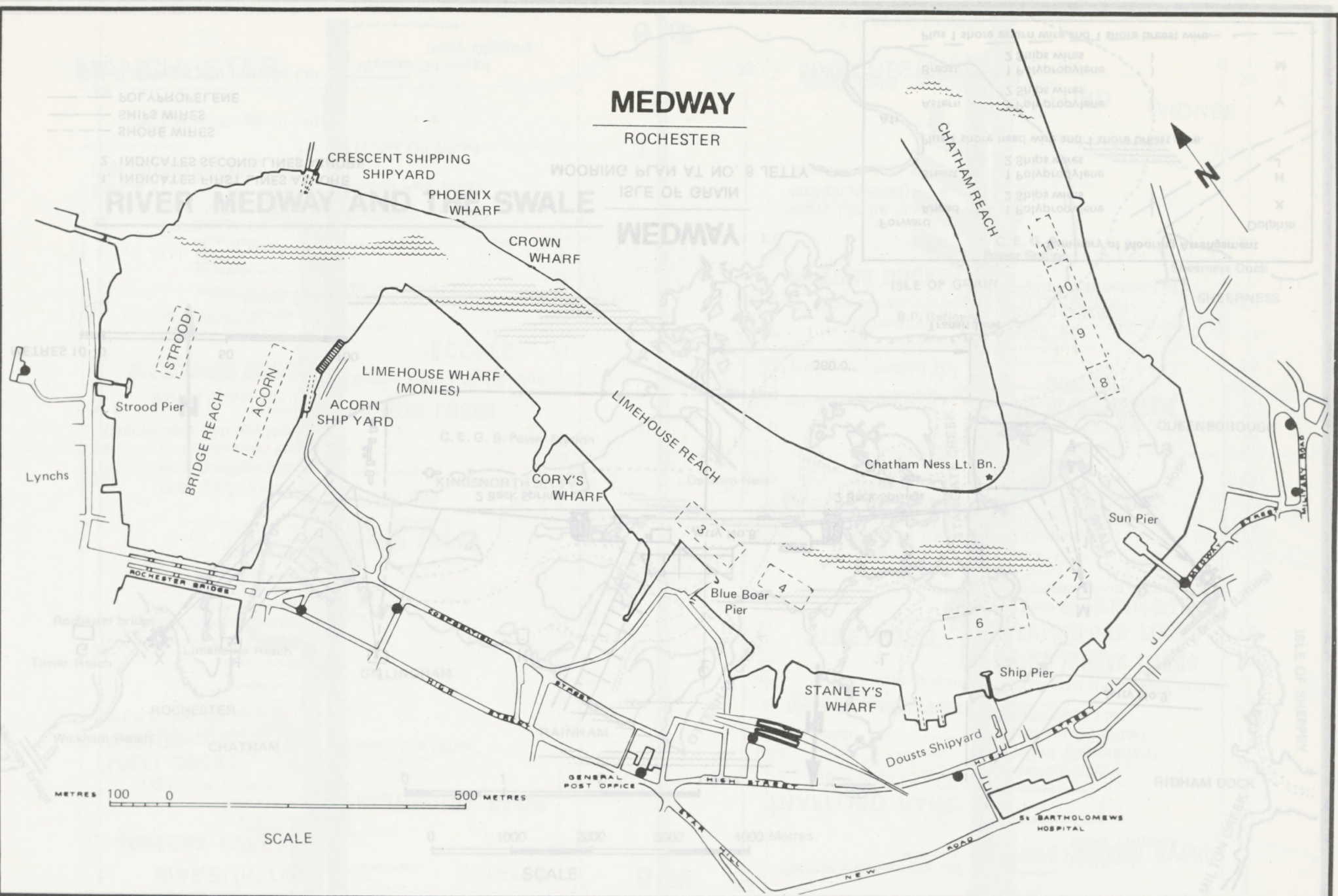
1. INDICATES FIRST LINES ASHORE
2. INDICATES SECOND LINES ASHORE

--- SHORE WIRES  
 — SHIPS WIRES  
 - · - POLYPROPELENE

#### Summary of Mooring Arrangement

Forward		Dolphin	
Ahead	1 Polypropylene ) 2 Ships wires )		X
Breast	1 Polypropylene ) 2 Ships wires )		H J
Plus 1 shore head wire and 1 shore breast wire.			
Aft			
Astern	1 Polypropylene ) 2 Ships wires )		Y
Breast	1 Polypropylene ) 2 Ships wires )		M
Plus 1 shore astern wire and 1 shore breast wire.			







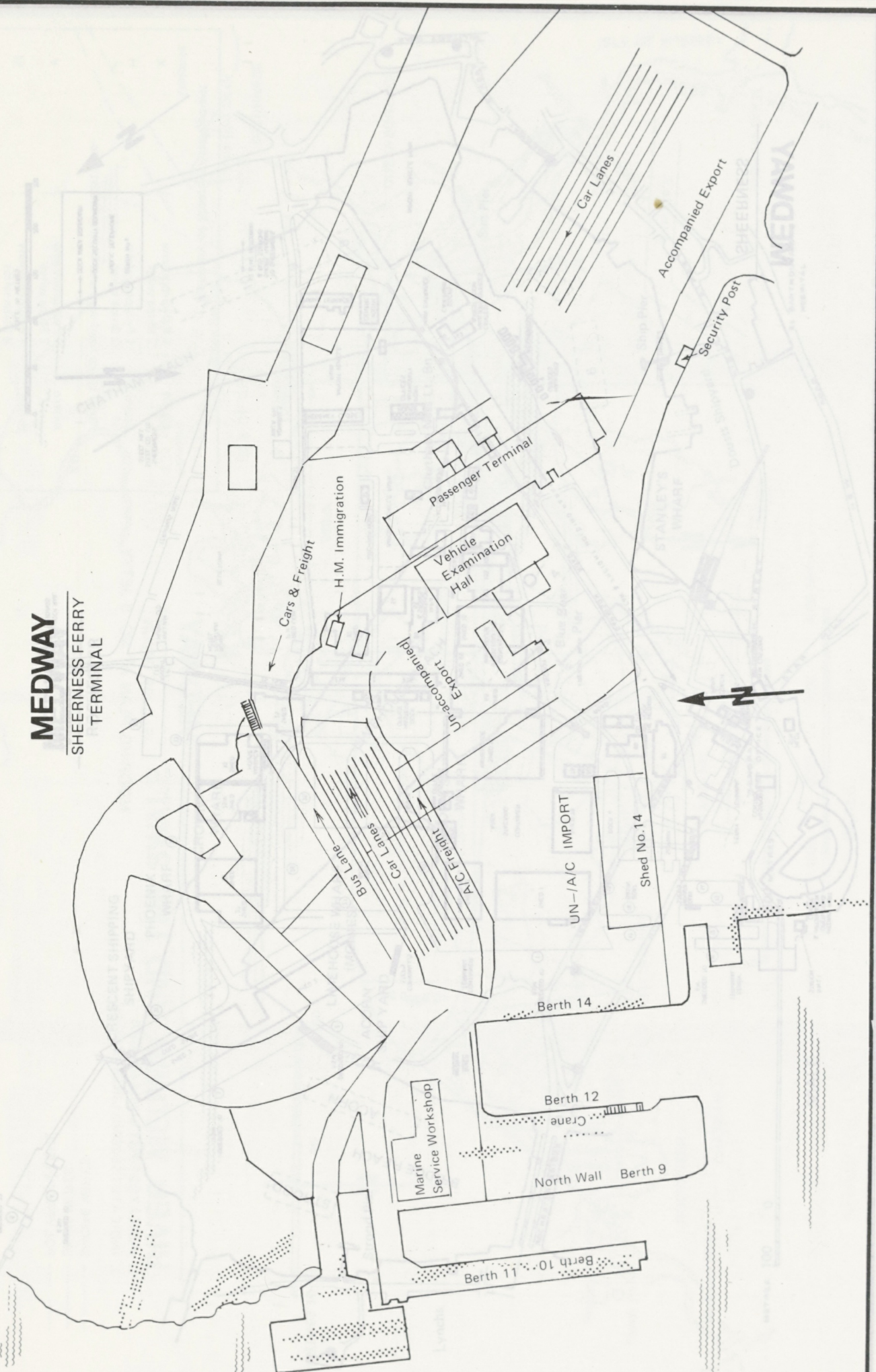
# MEDWAY

## SHEERNESS

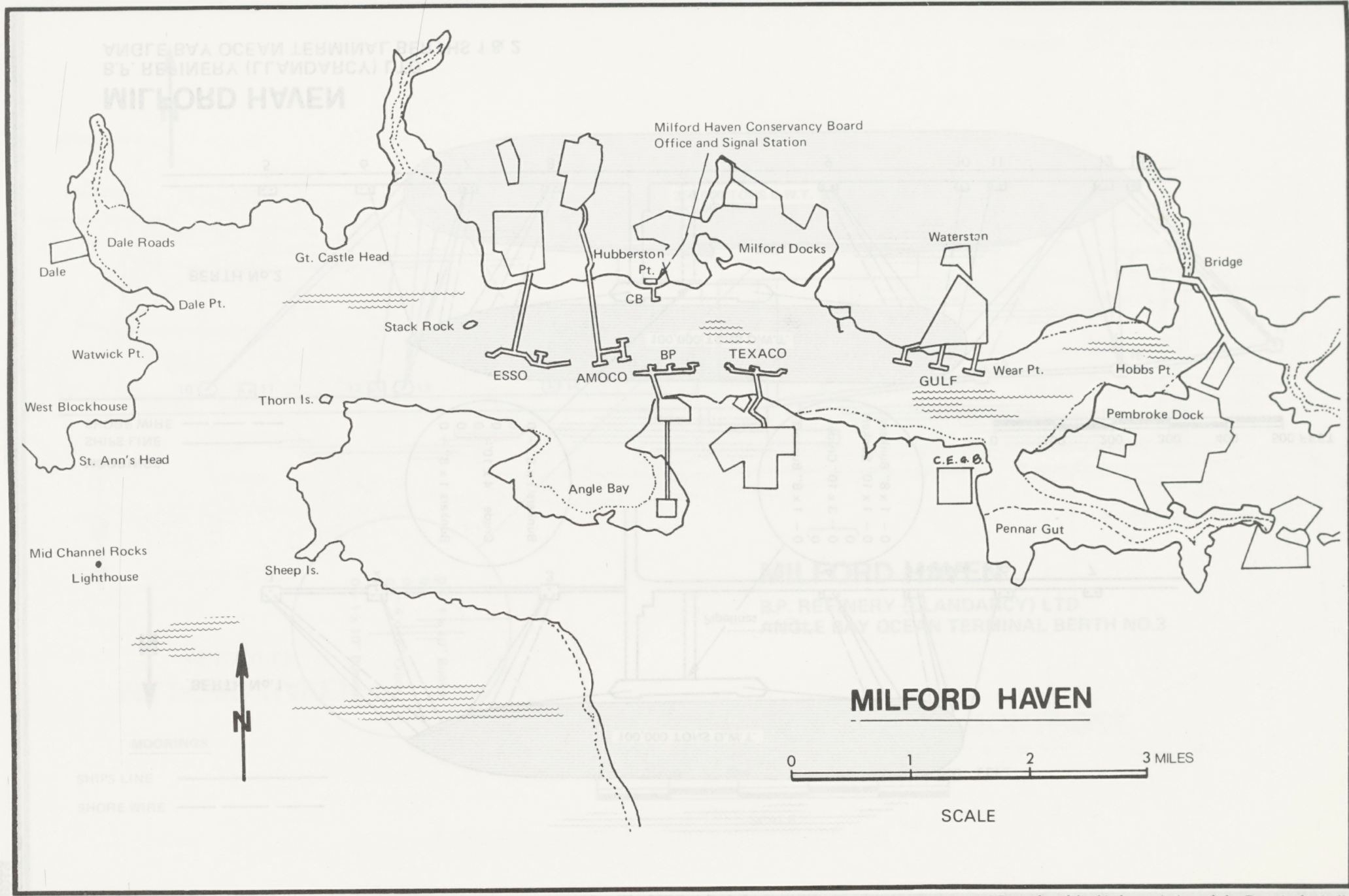




# MEDWAY SHEERNESS FERRY TERMINAL





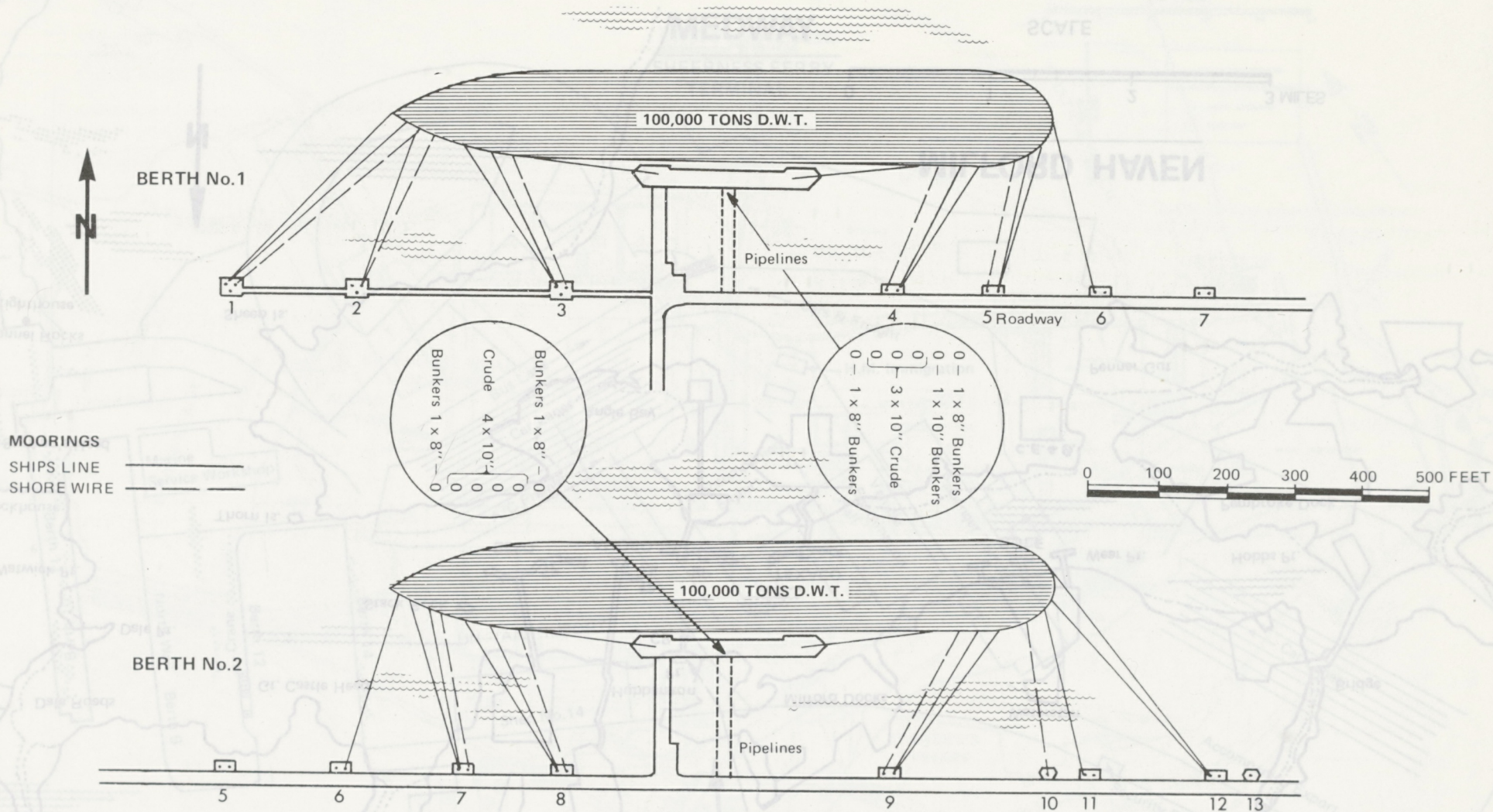


# MILFORD HAVEN

0 1 2 3 MILES

SCALE

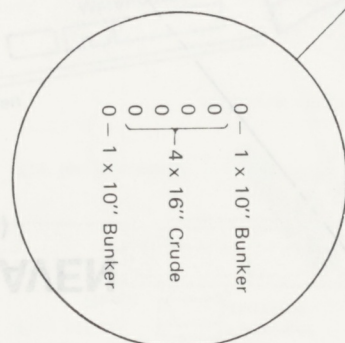
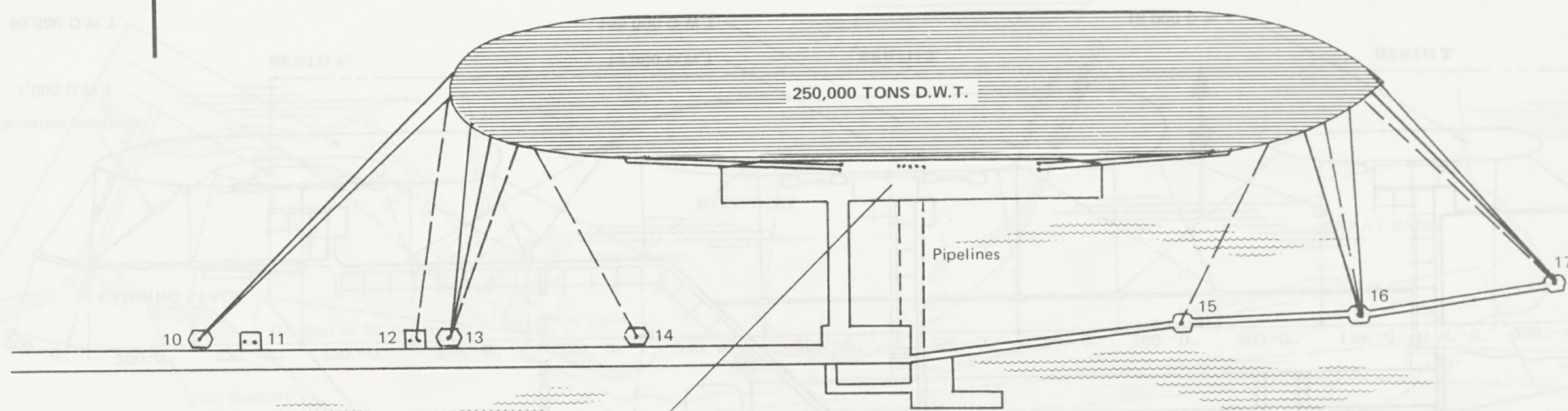




## MILFORD HAVEN

B.P. REFINERY (LLANDARCY) LTD  
ANGLE BAY OCEAN TERMINAL BERTHS 1 & 2

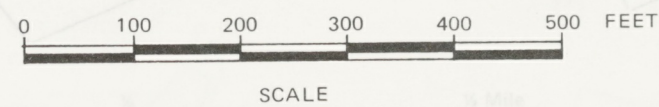




**MILFORD HAVEN**  
B.P. REFINERY (LLANDARCY) LTD  
ANGLE BAY OCEAN TERMINAL BERTH NO.3

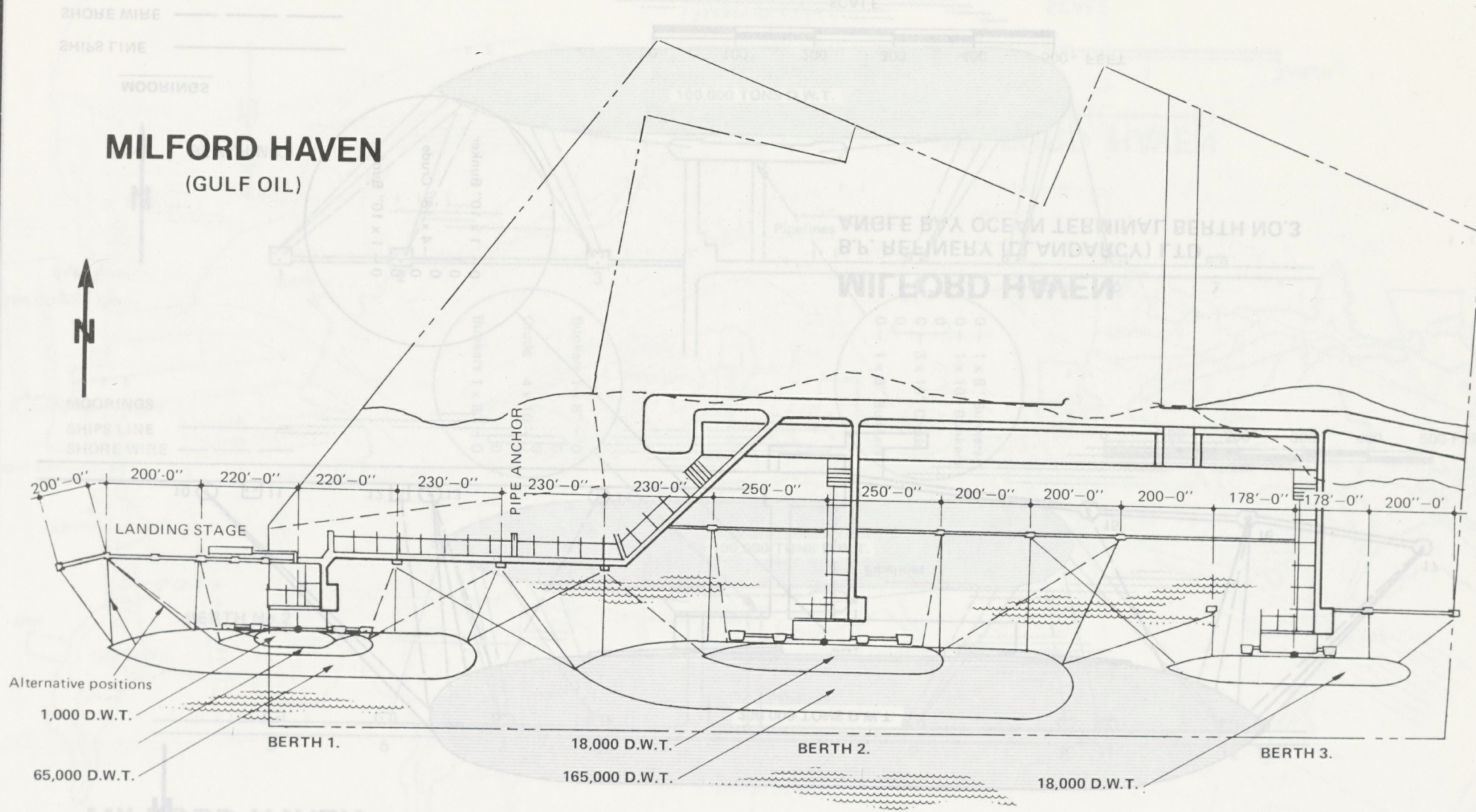
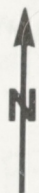
MOORINGS

SHIPS LINE \_\_\_\_\_  
SHORE WIRE - - - - -



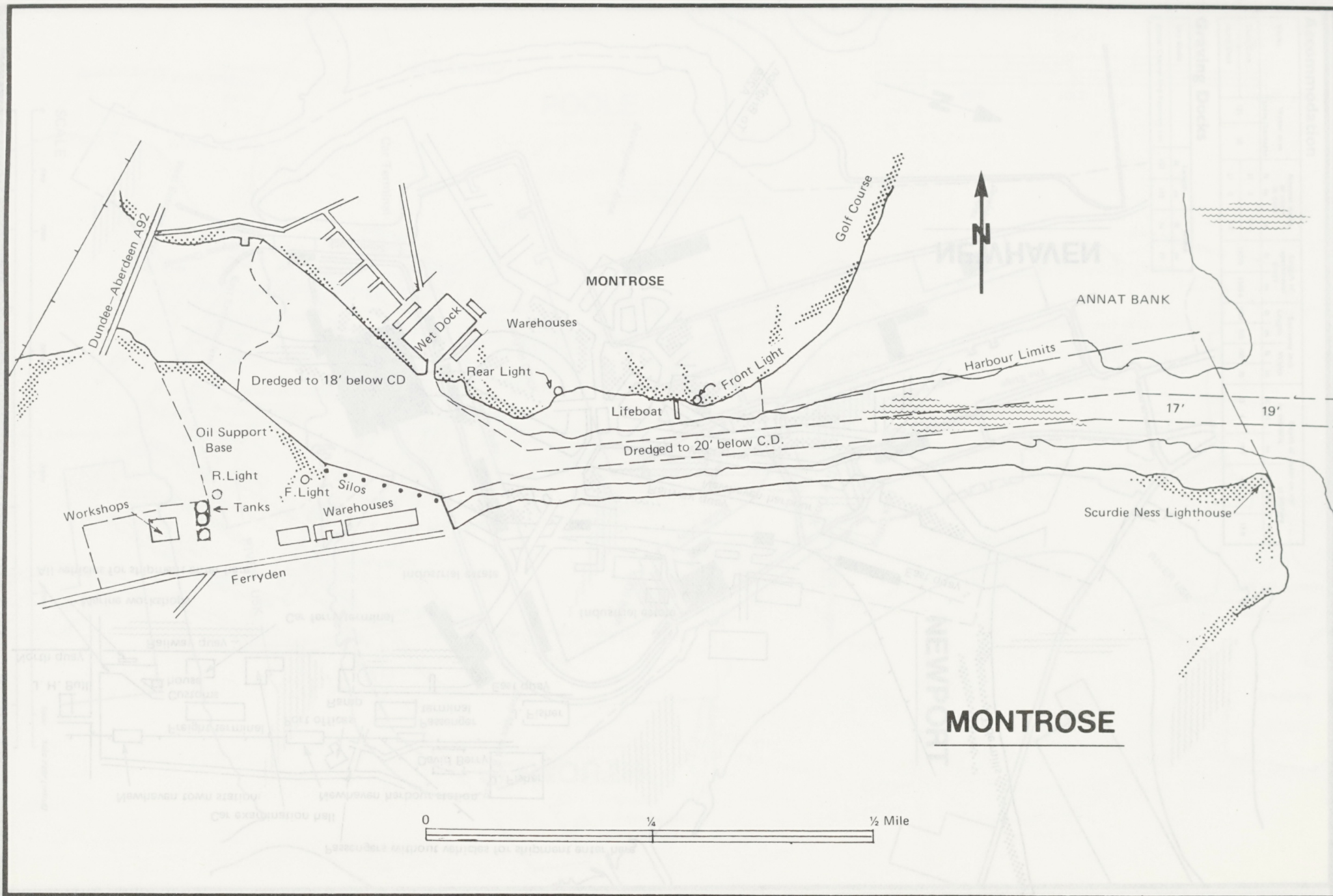


# MILFORD HAVEN (GULF OIL)



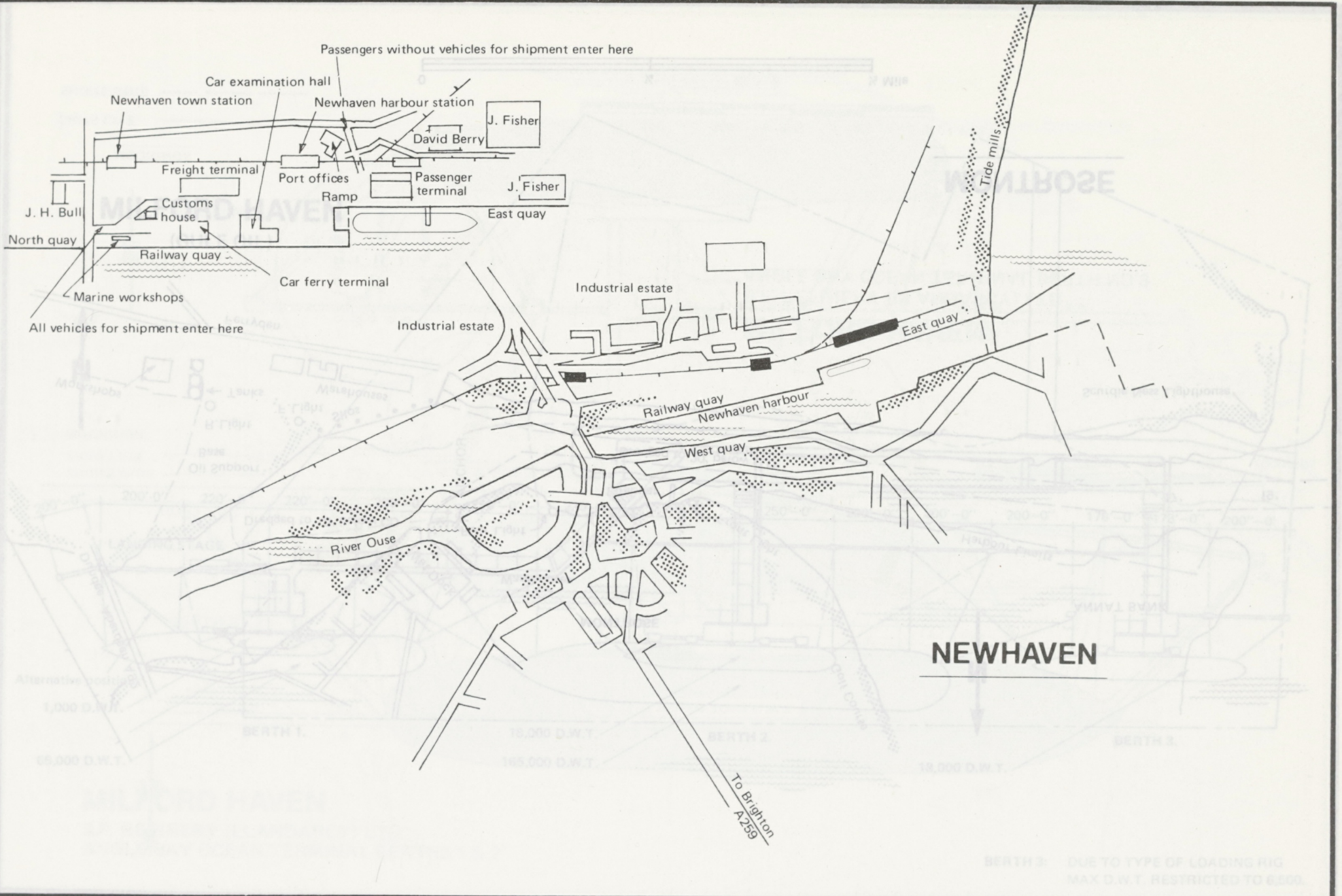
BERTH 3: DUE TO TYPE OF LOADING RIG  
MAX D.W.T. RESTRICTED TO 6,500.





# MONTROSE





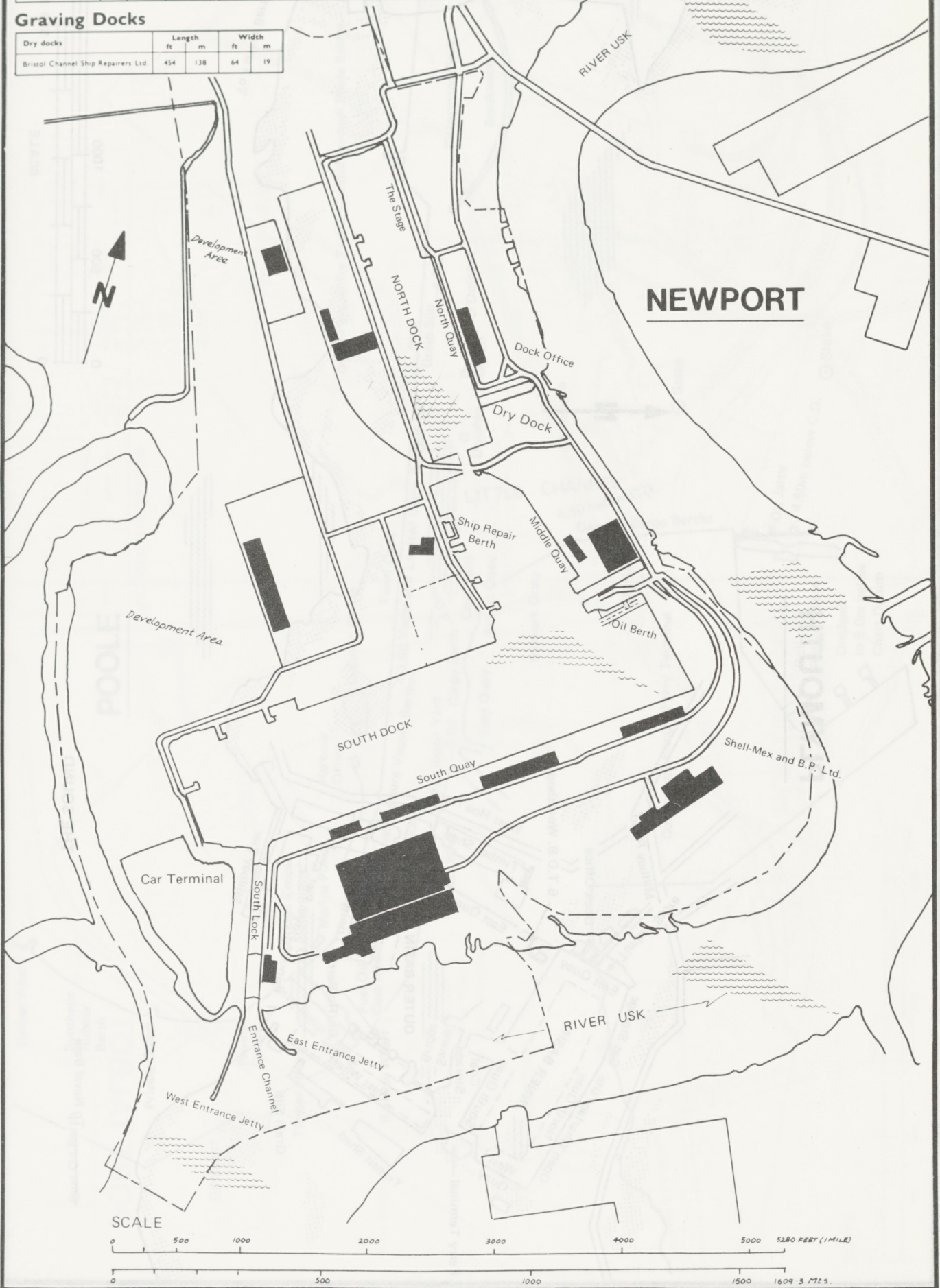


Accommodation

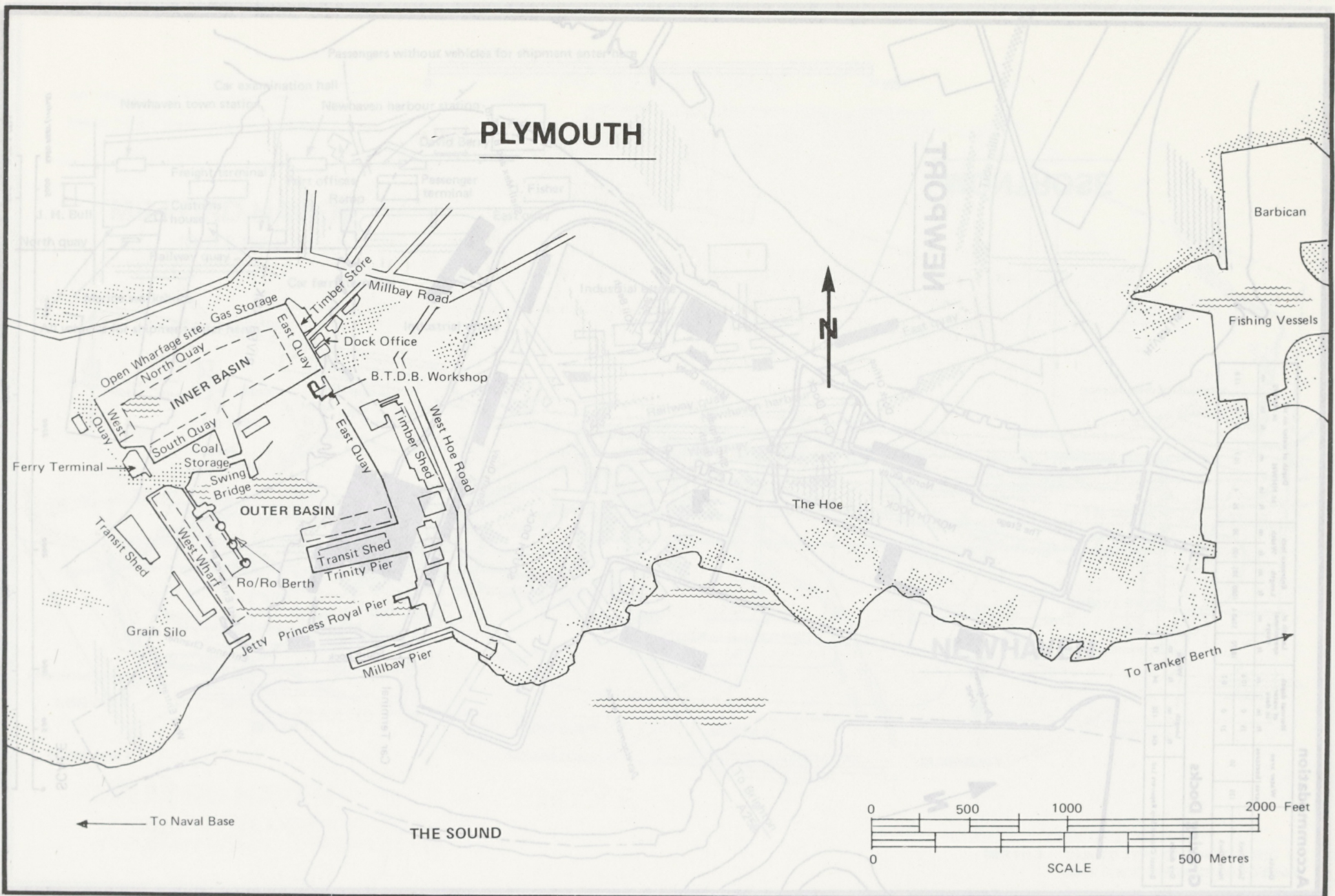
Docks	Water area		Normal depth of water in dock			Length of operational quays		Entrance lock				Depth of water on sill					
												at MHHW			at MHWS		
	acres	hectares	ft	in	m	ft	m	ft	m	ft	m	ft	in	m	ft	in	m
South Dock	125	50	35	0	10.6	18270	5568.6	1000	305	100	30	35	4	10.7	45	4	13.8
North Dock			27	0	8.2												

Graving Docks

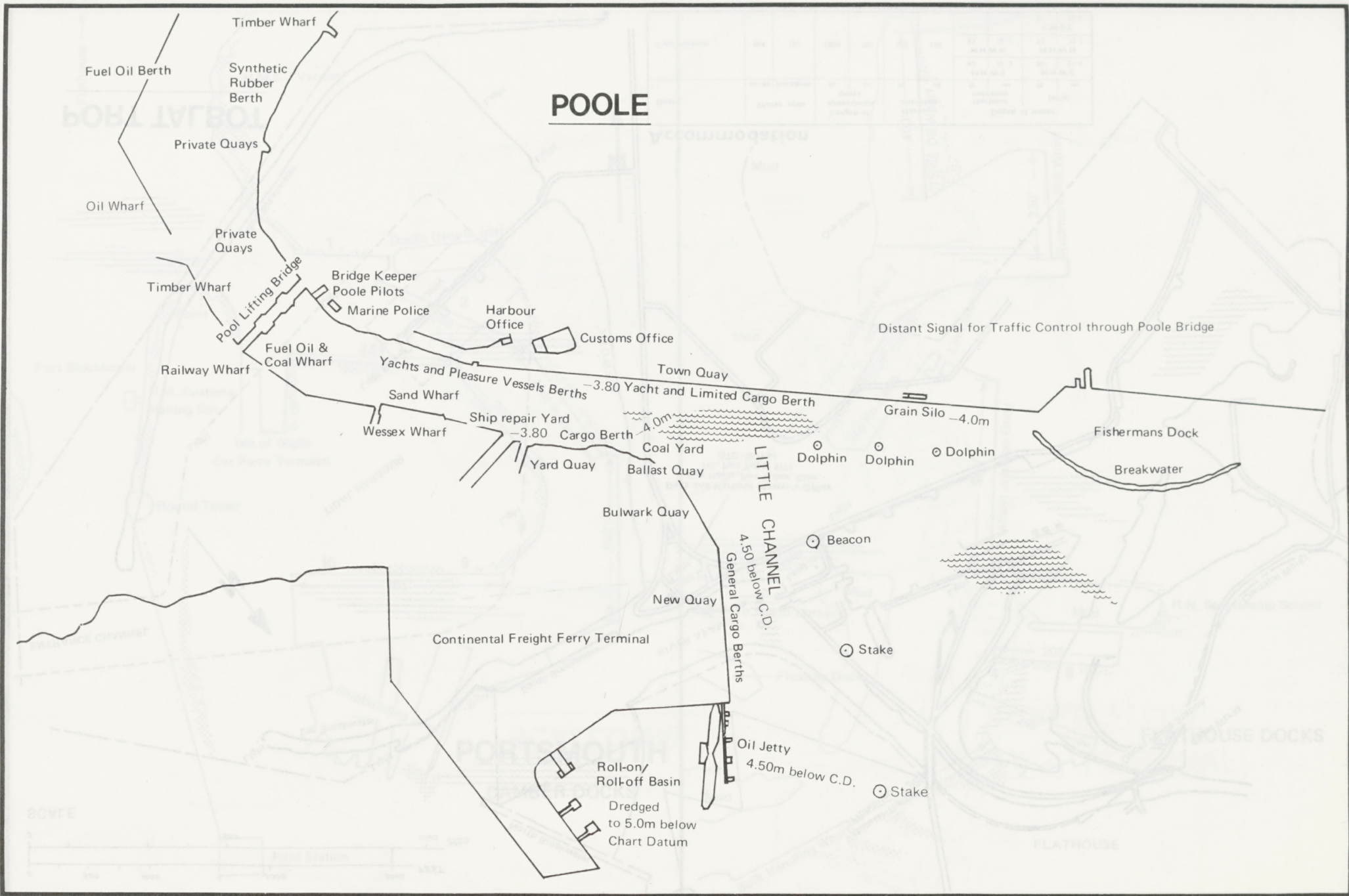
Dry docks	Length		Width	
	ft	m	ft	m
Bristol Channel Ship Repairers Ltd	454	138	64	19



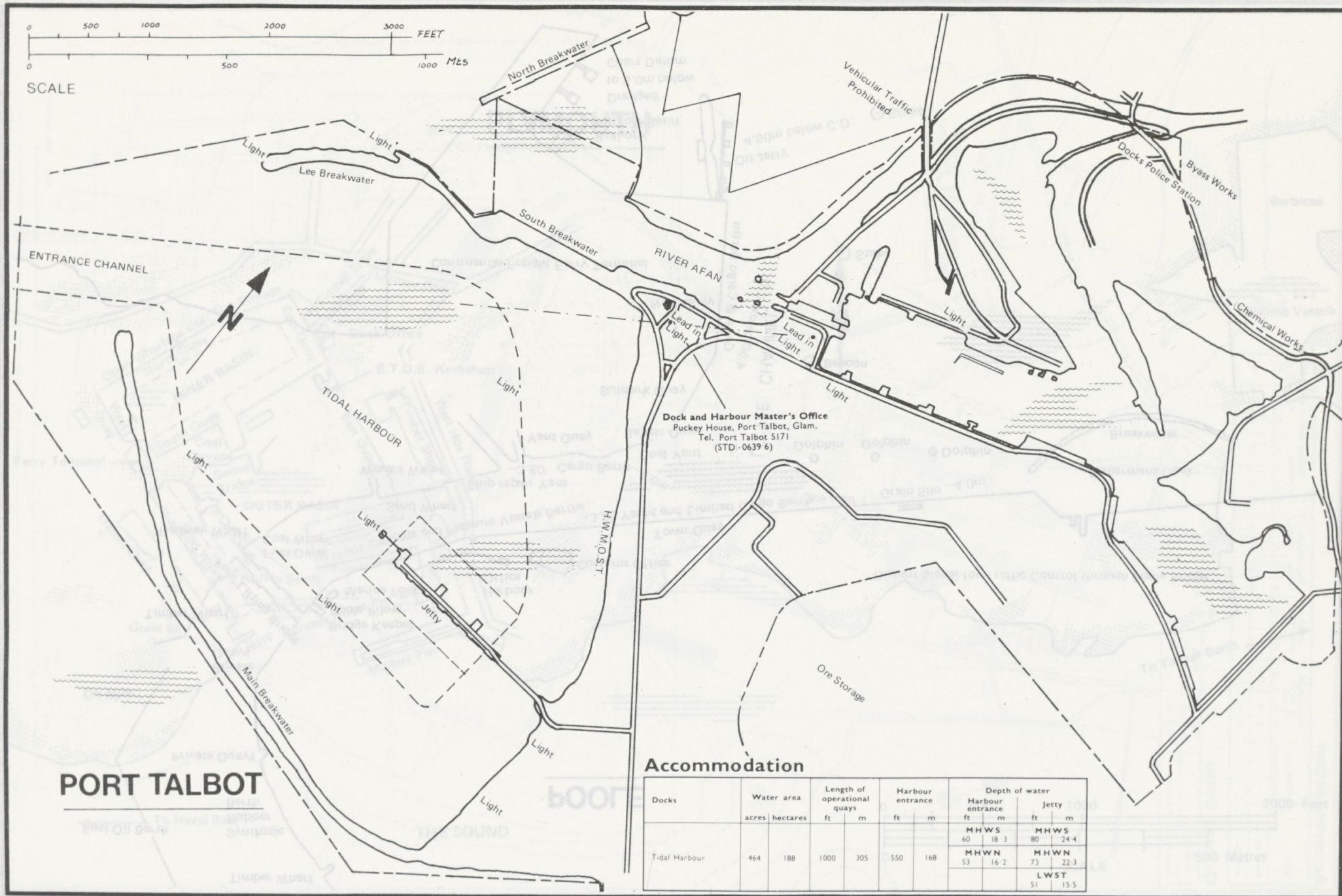










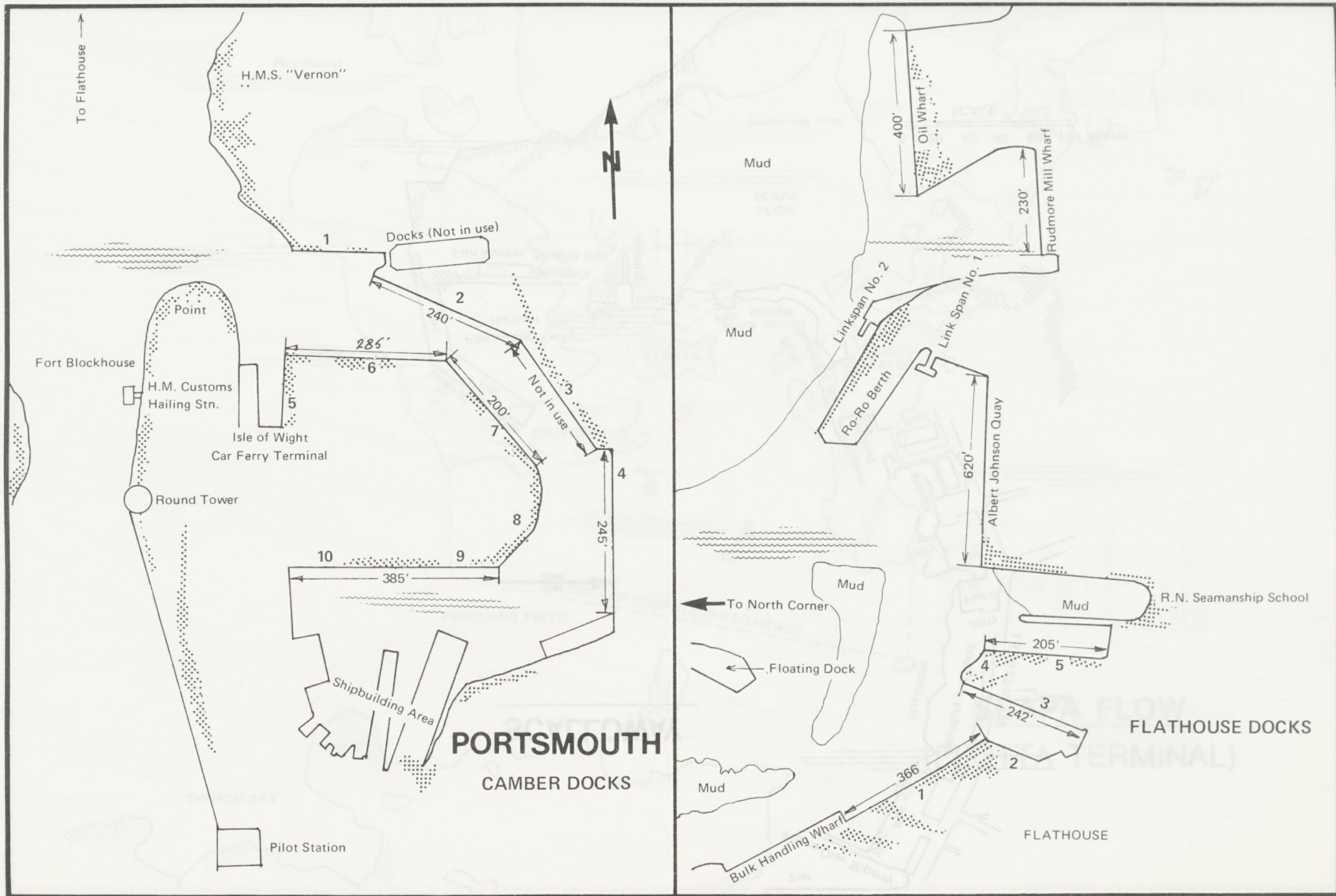


# PORT TALBOT

## Accommodation

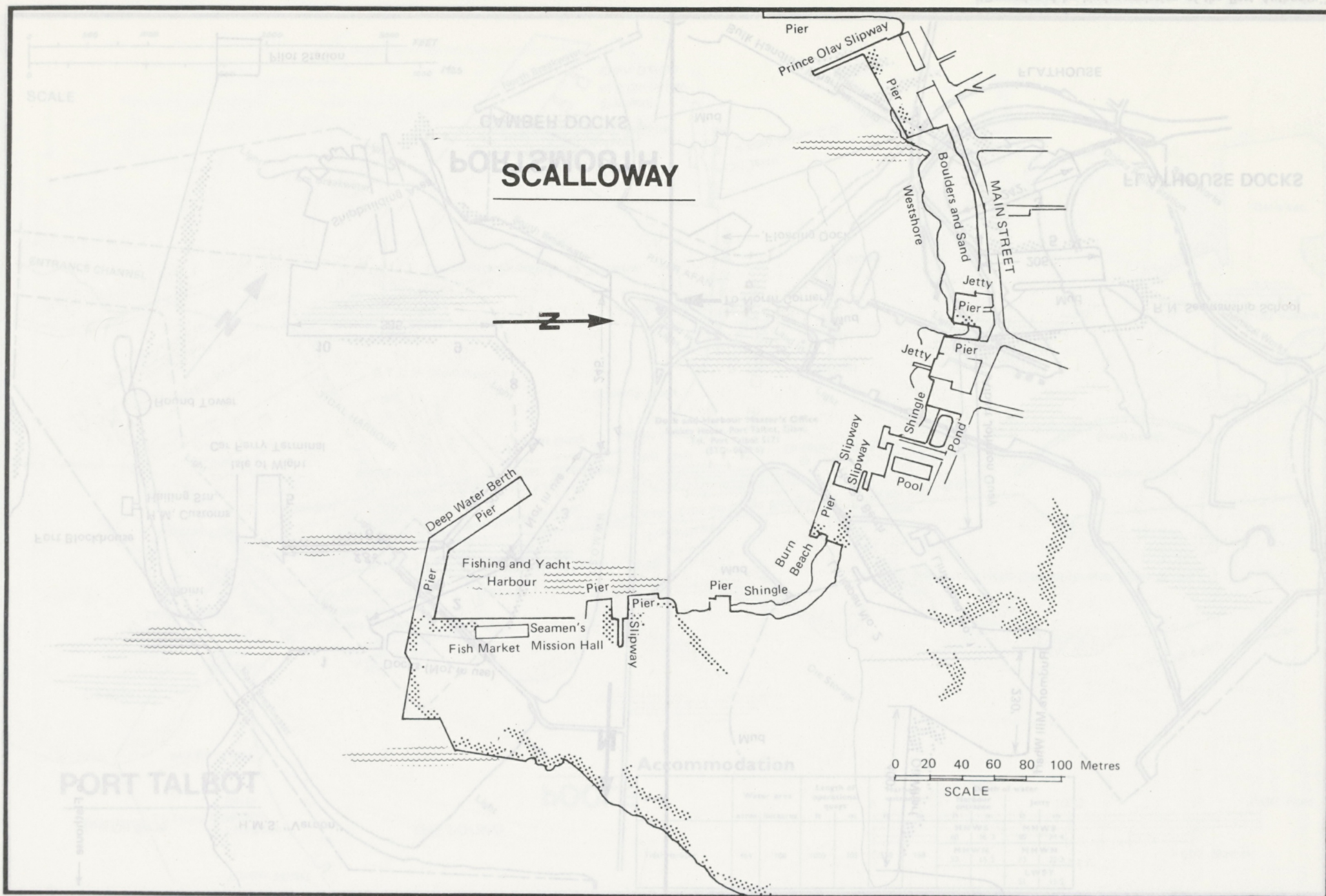
Docks	Water area		Length of operational quays		Harbour entrance		Depth of water			
	acres	hectares	ft	m	ft	m	Harbour entrance	ft	m	Jetty
Tidal Harbour	464	188	1000	305	550	168	MHWS	60	18.3	MHWS
										80
							MHWN	53	16.2	MHWN
										73
							LWST	51	15.5	



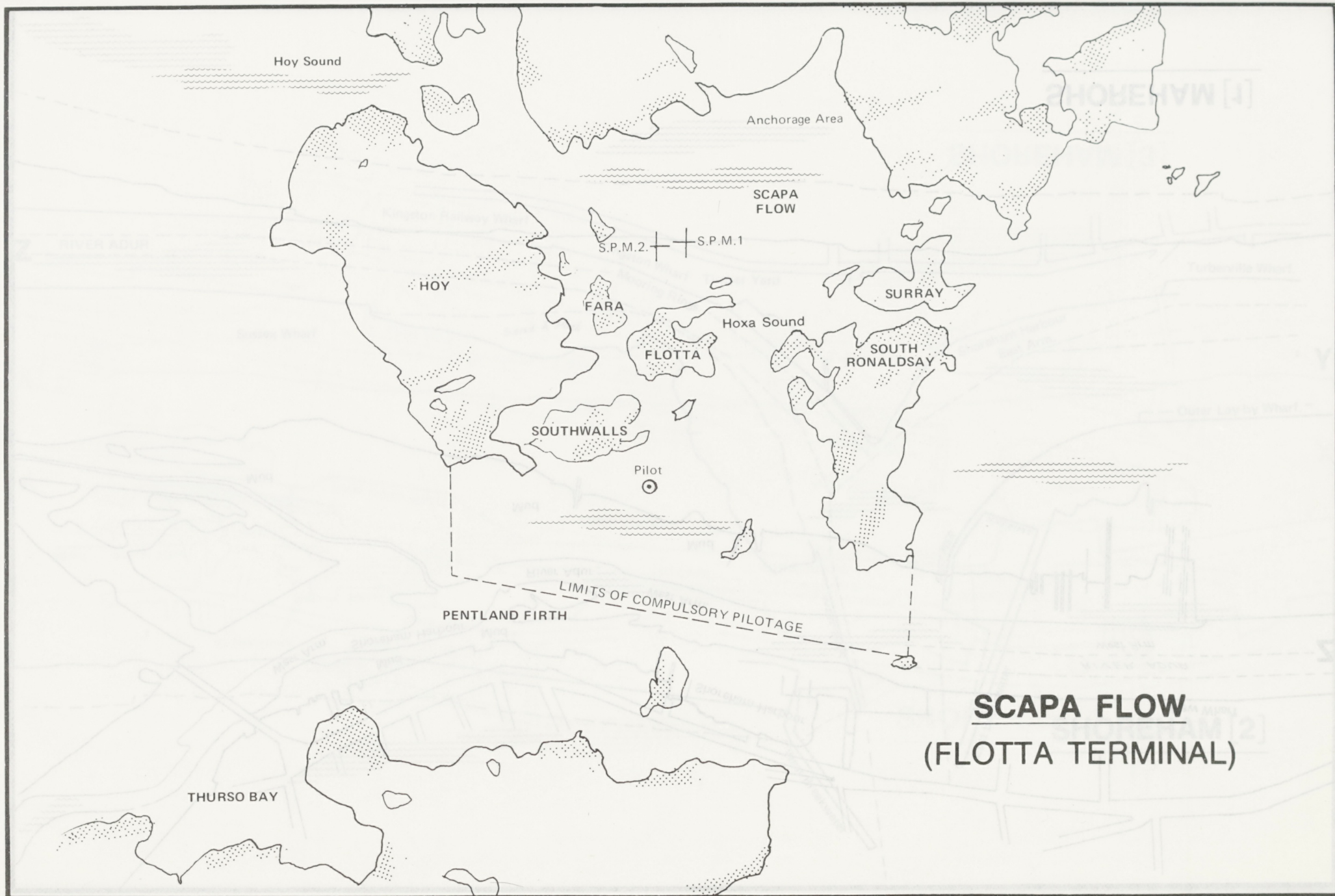


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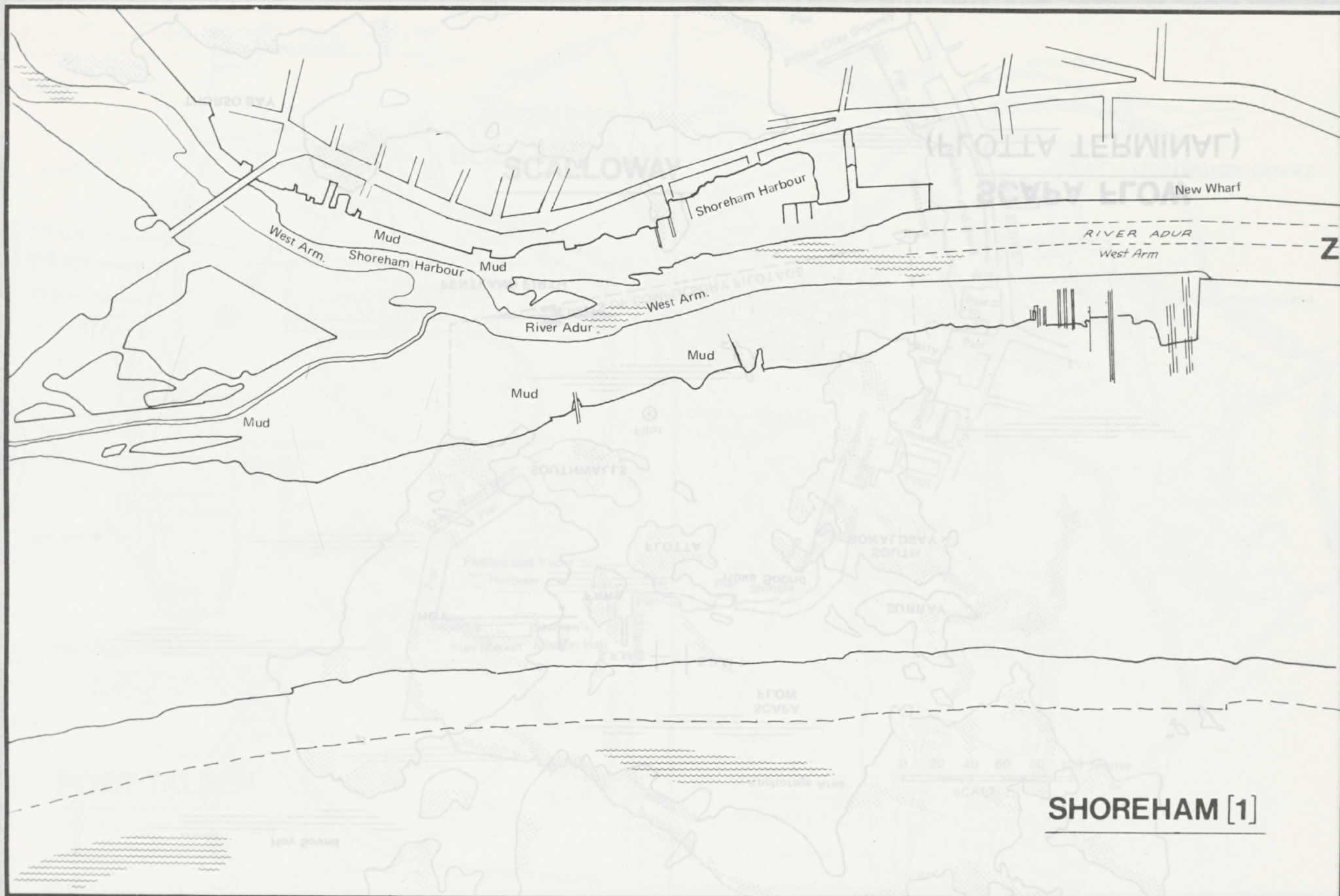




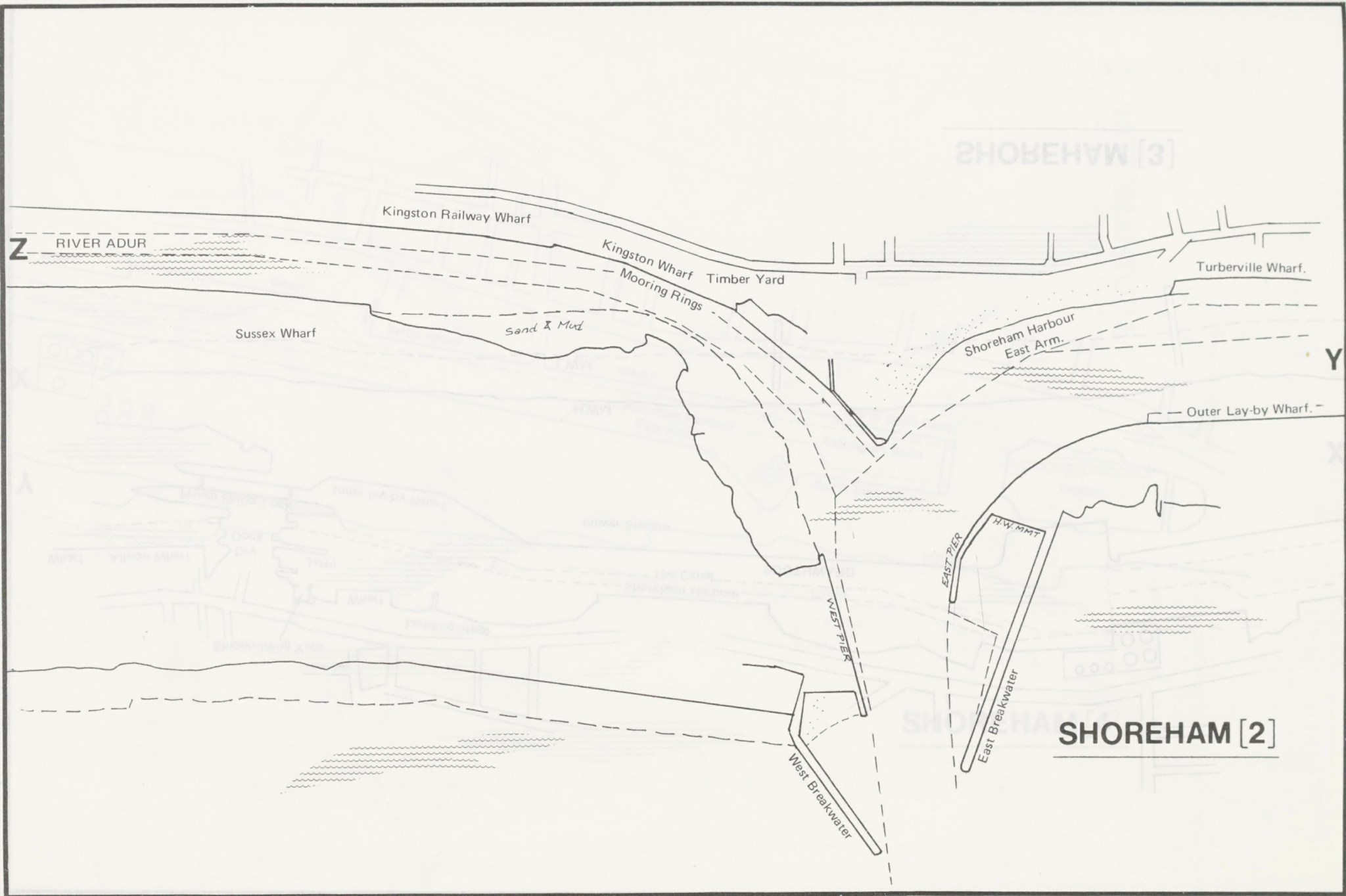
## **SCAPA FLOW** **(FLOTTA TERMINAL)**

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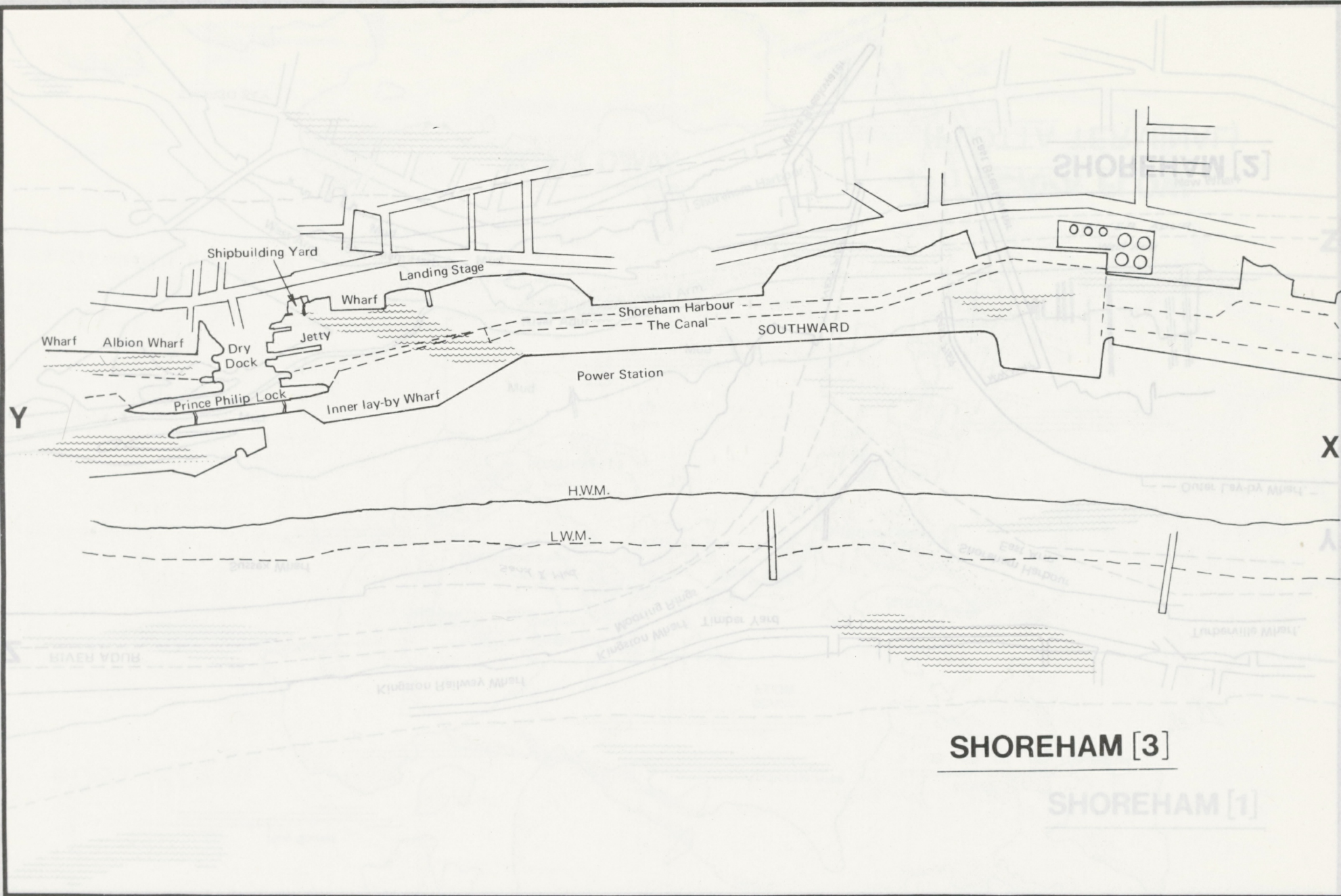




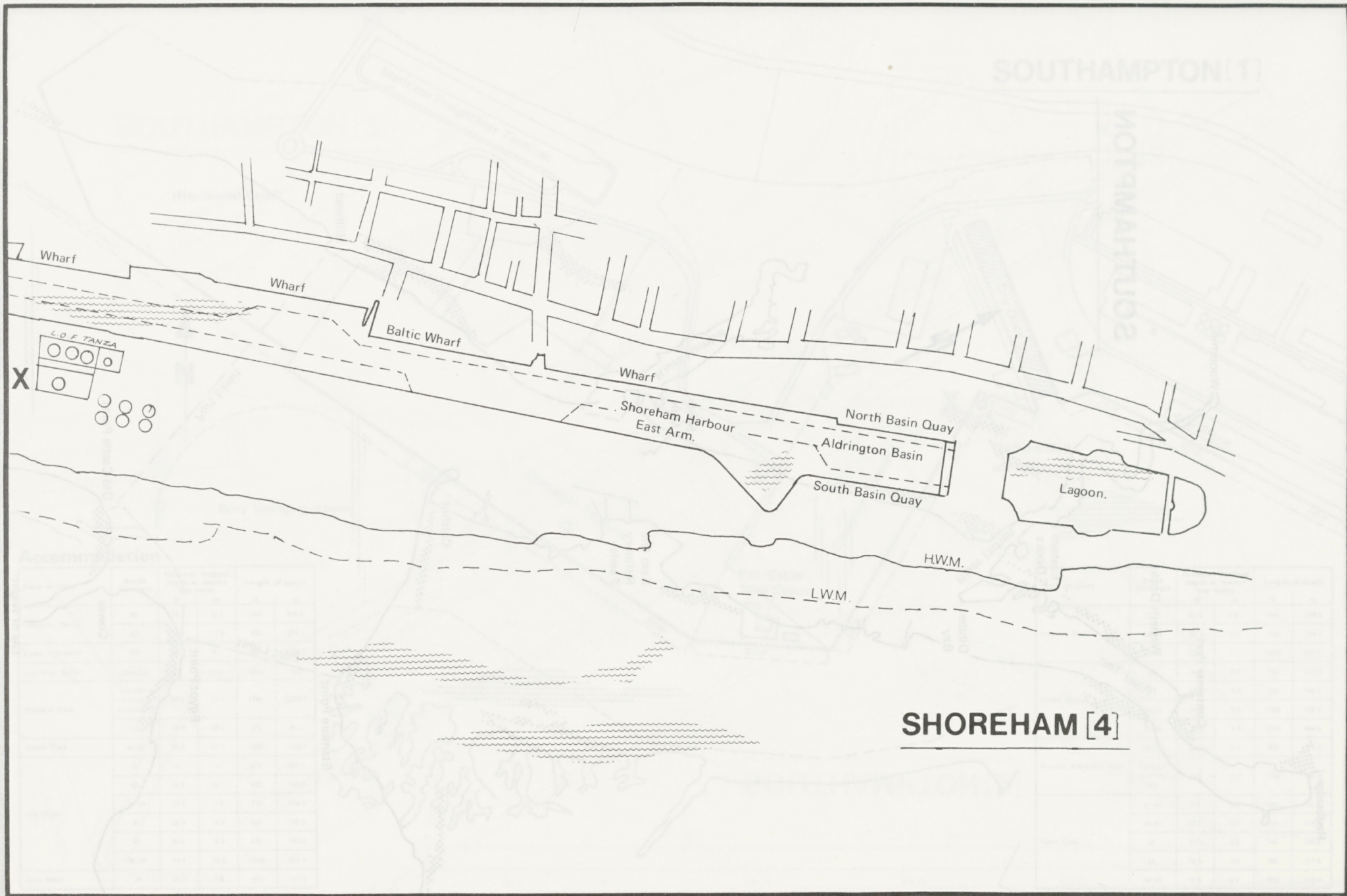


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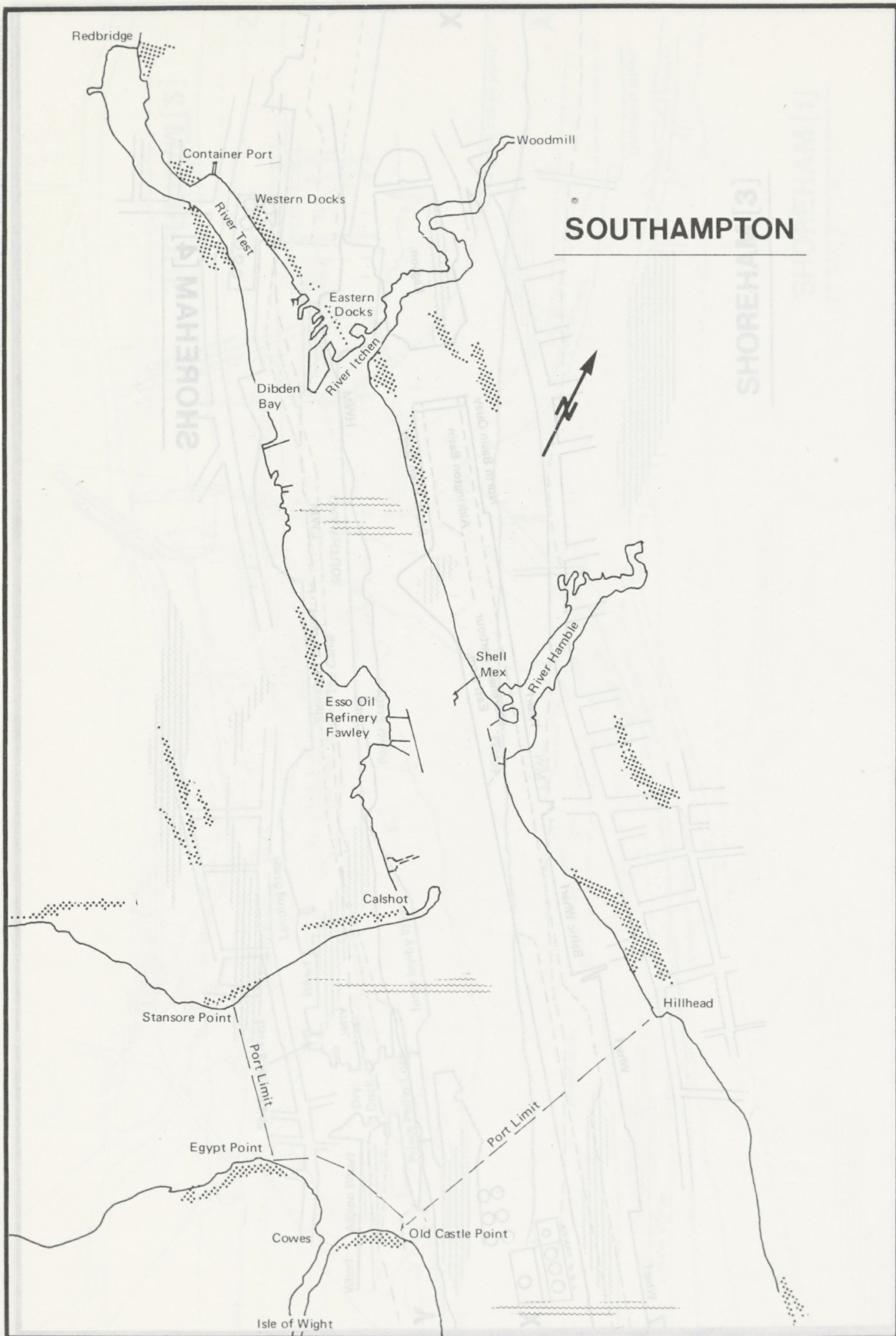




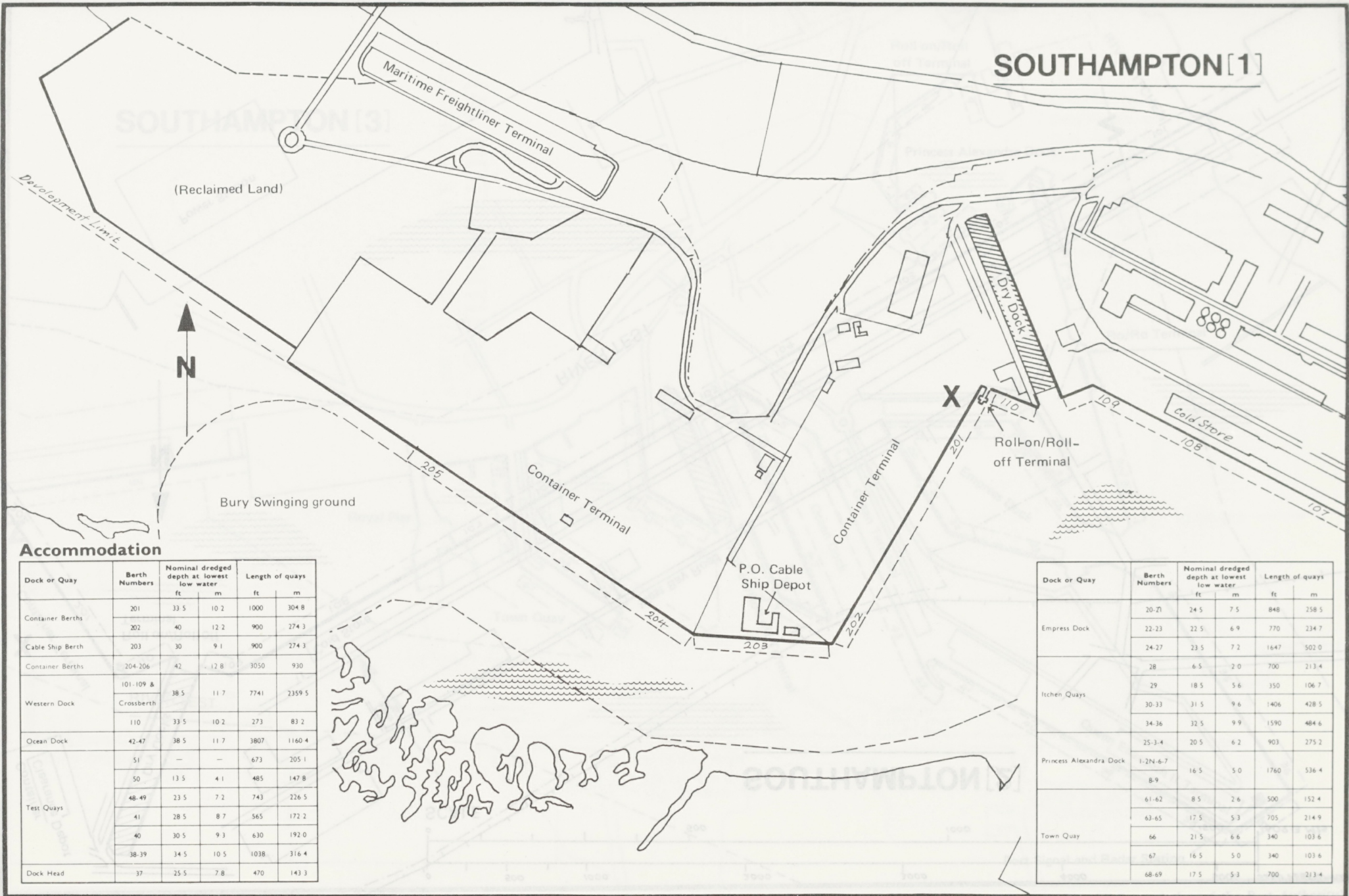
## SHOREHAM [4]

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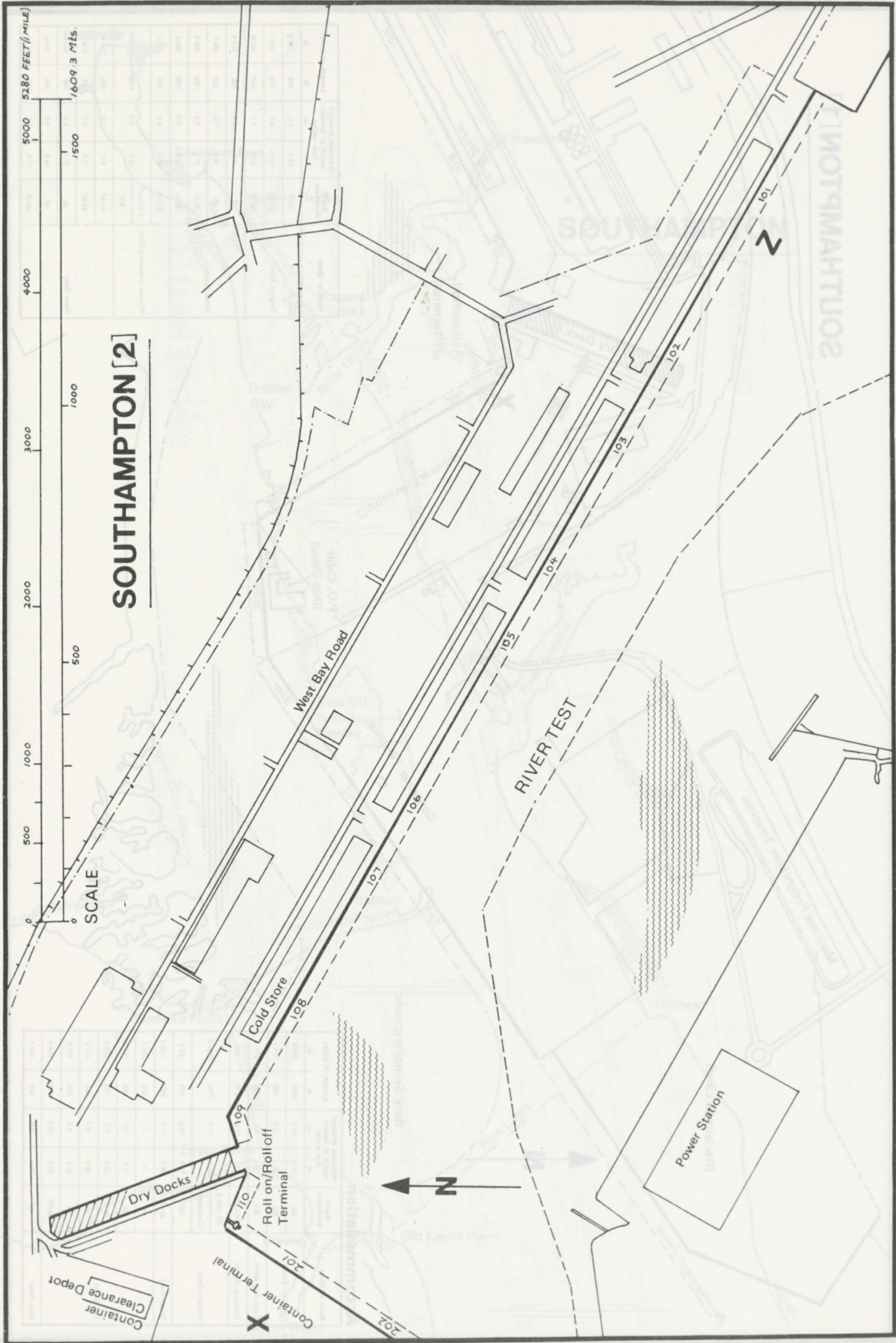
Accommodation

Dock or Quay	Berth Numbers	Nominal dredged depth at lowest low water		Length of quays	
		ft	m	ft	m
Container Berths	201	33.5	10.2	1000	304.8
	202	40	12.2	900	274.3
Cable Ship Berth	203	30	9.1	900	274.3
Container Berths	204-206	42	12.8	3050	930
Western Dock	101-109 & Crossberth	38.5	11.7	7741	2359.5
	110	33.5	10.2	273	83.2
Ocean Dock	42-47	38.5	11.7	3807	1160.4
Test Quays	51	—	—	673	205.1
	50	13.5	4.1	485	147.8
	48-49	23.5	7.2	743	226.5
	41	28.5	8.7	565	172.2
	40	30.5	9.3	630	192.0
	38-39	34.5	10.5	1038	316.4
Dock Head	37	25.5	7.8	470	143.3

Dock or Quay	Berth Numbers	Nominal dredged depth at lowest low water		Length of quays	
		ft	m	ft	m
Empress Dock	20-21	24.5	7.5	848	258.5
	22-23	22.5	6.9	770	234.7
	24-27	23.5	7.2	1647	502.0
Itchen Quays	28	6.5	2.0	700	213.4
	29	18.5	5.6	350	106.7
	30-33	31.5	9.6	1406	428.5
	34-36	32.5	9.9	1590	484.6
Princess Alexandra Dock	25-34	20.5	6.2	903	275.2
	1-2N-6-7	16.5	5.0	1760	536.4
	8-9	—	—	—	—
Town Quay	61-62	8.5	2.6	500	152.4
	63-65	17.5	5.3	705	214.9
	66	21.5	6.6	340	103.6
	67	16.5	5.0	340	103.6
	68-69	17.5	5.3	700	213.4

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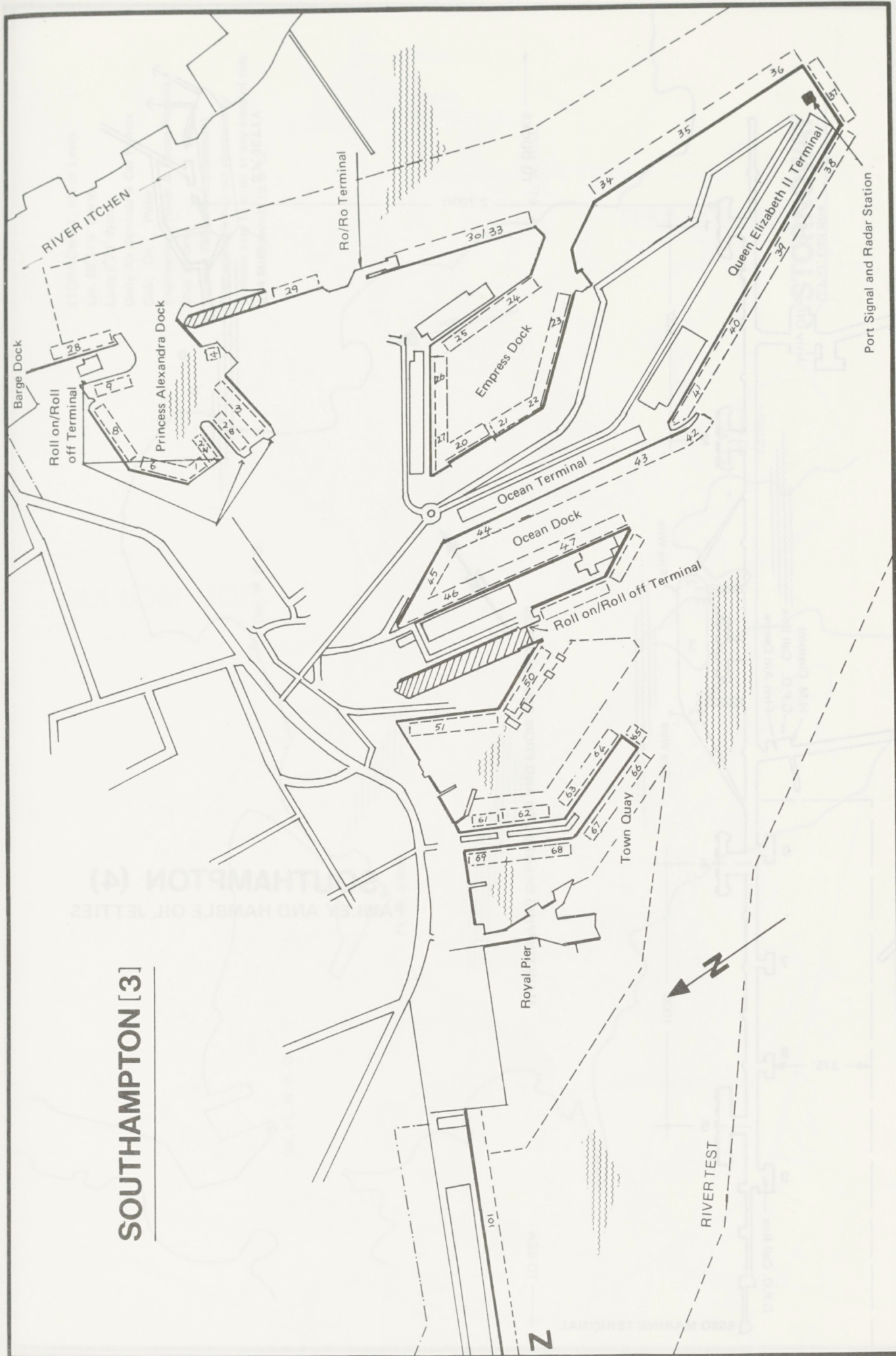




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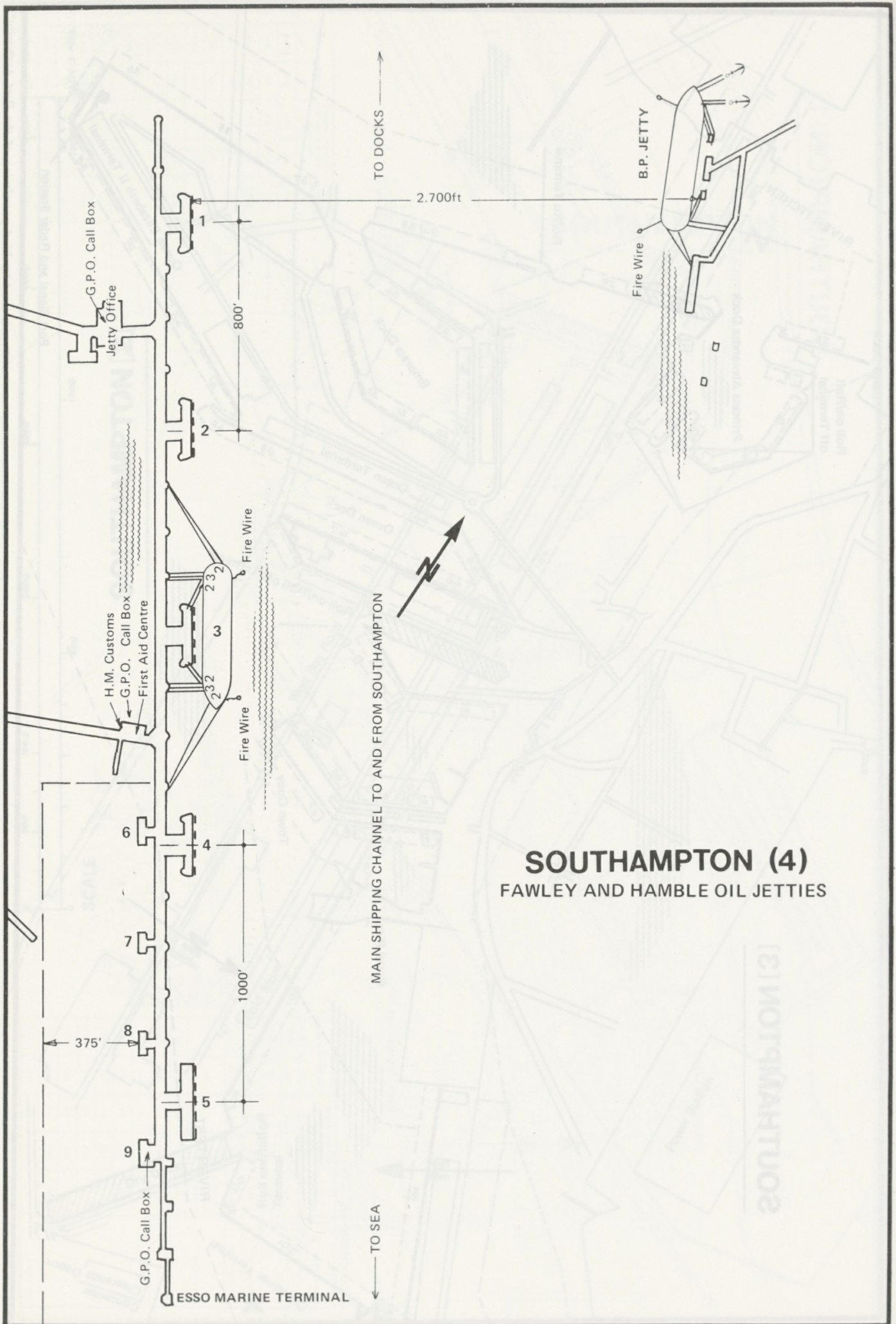
**SOUTHAMPTON [3]**



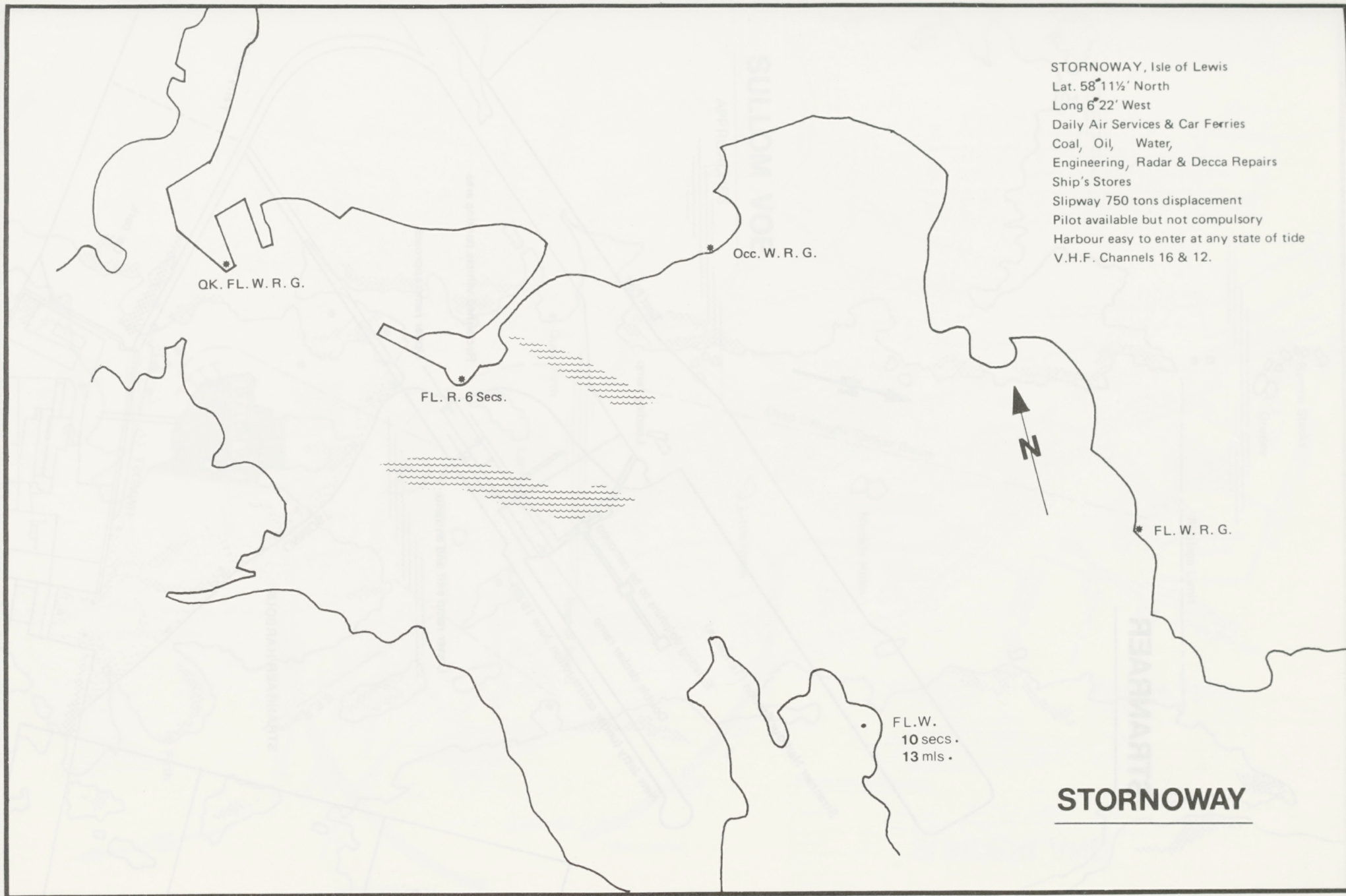
Port Signal and Radar Station

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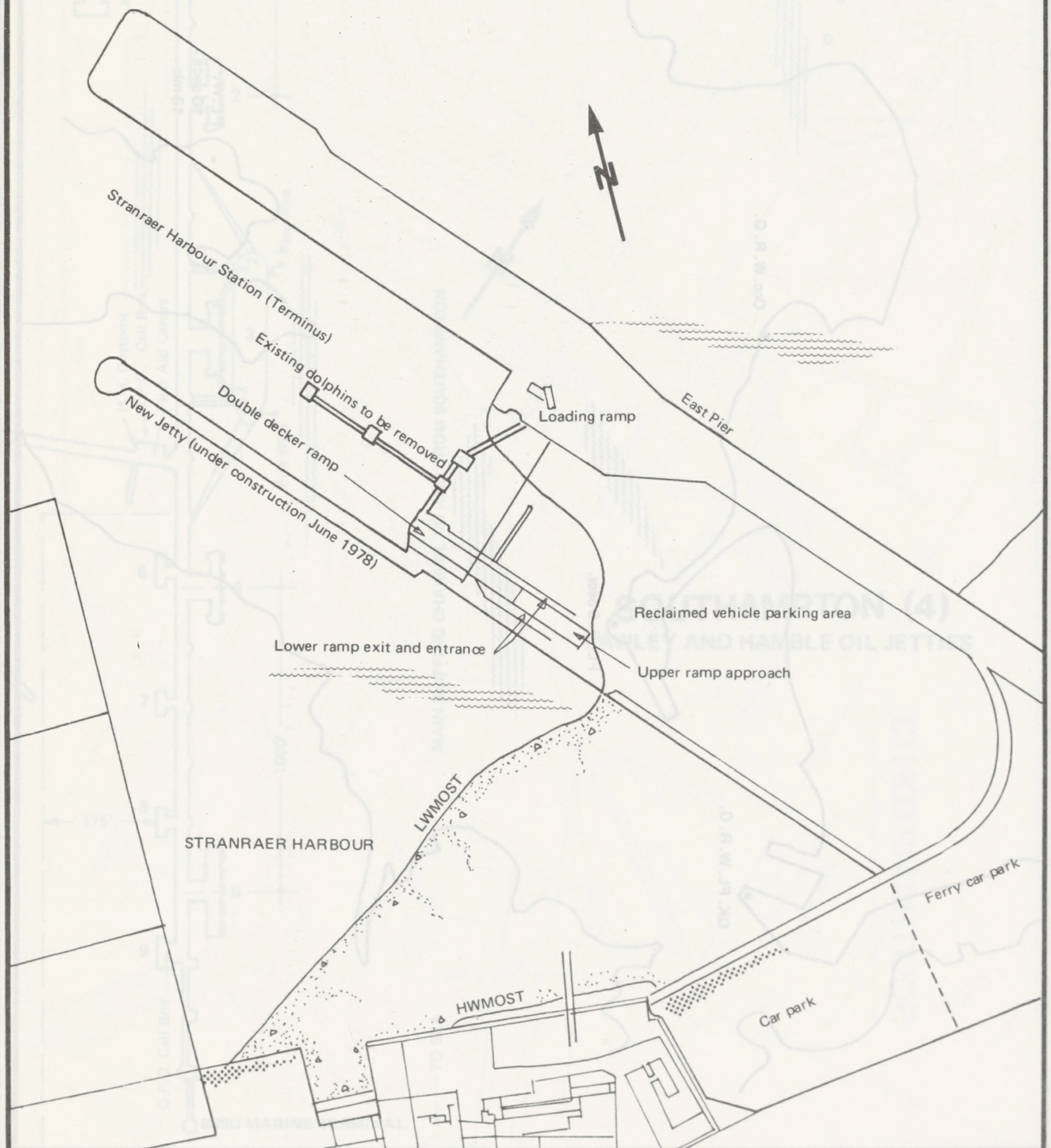
STORNOWAY, Isle of Lewis  
Lat.  $58^{\circ}11\frac{1}{2}'$  North  
Long  $6^{\circ}22'$  West  
Daily Air Services & Car Ferries  
Coal, Oil, Water,  
Engineering, Radar & Decca Repairs  
Ship's Stores  
Slipway 750 tons displacement  
Pilot available but not compulsory  
Harbour easy to enter at any state of tide  
V.H.F. Channels 16 & 12.

**STORNOWAY**

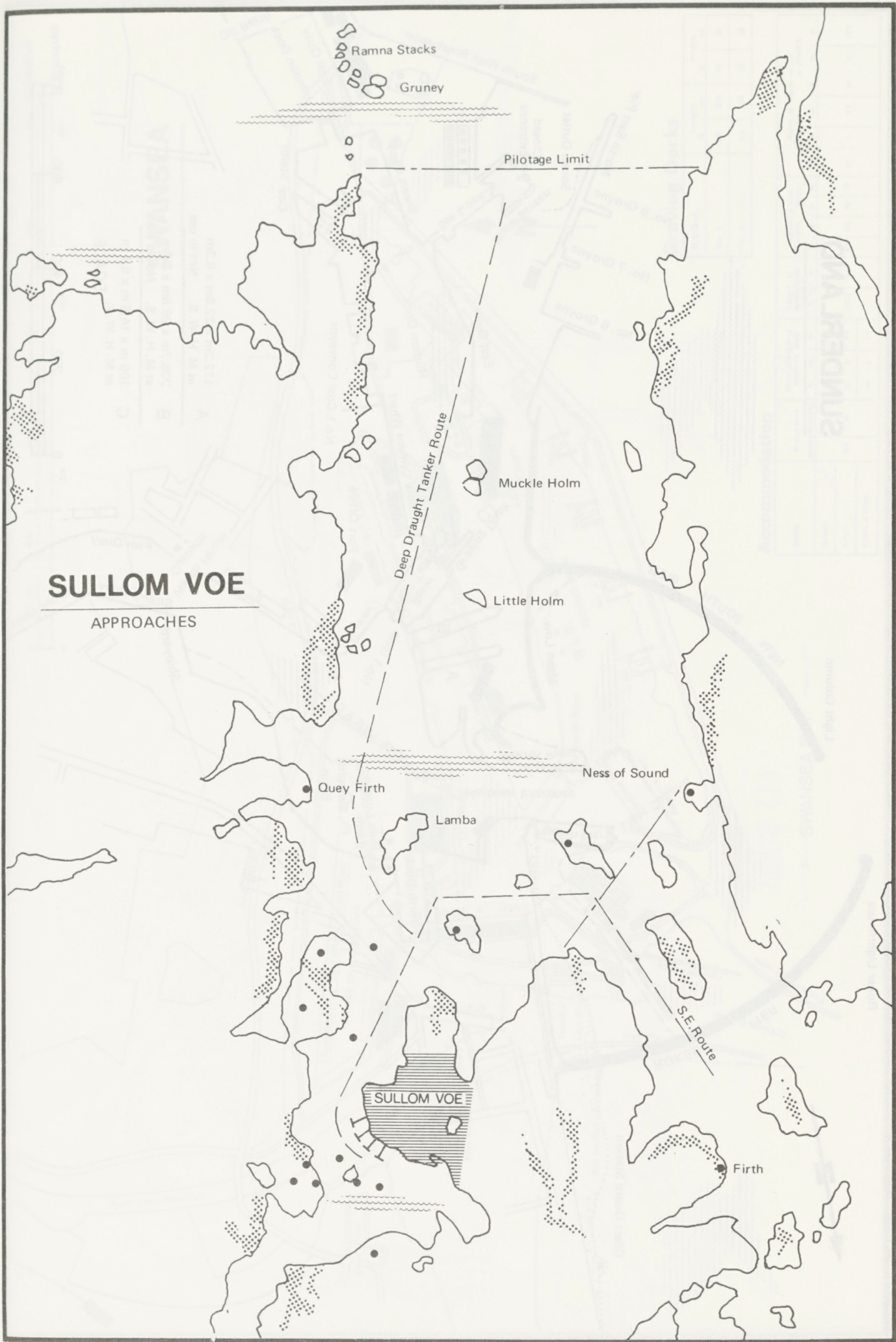
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# STRANRAER



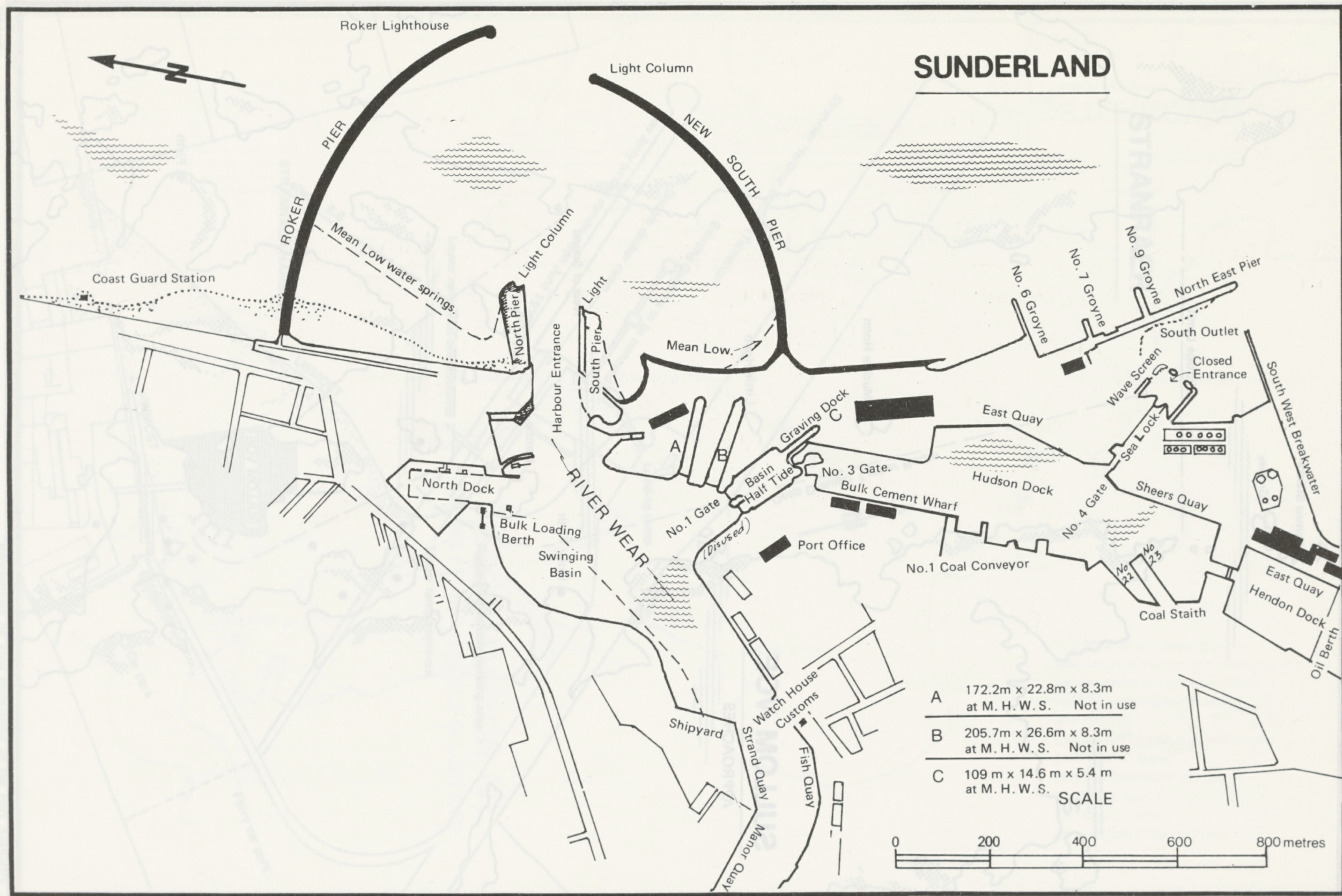




**SULLOM VOE**

APPROACHES

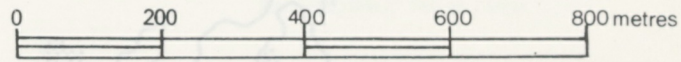




# SUNDERLAND

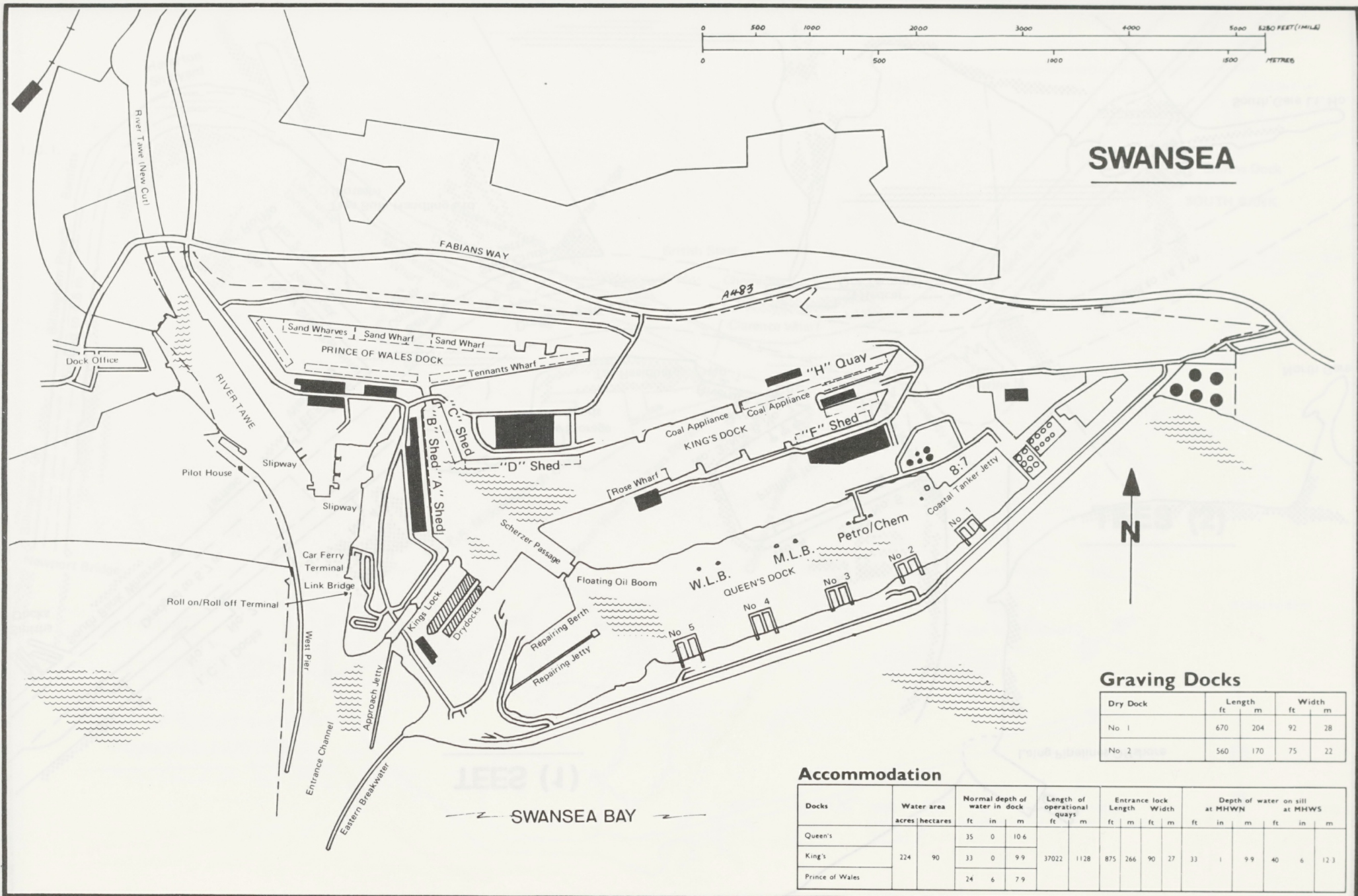
- A 172.2m x 22.8m x 8.3m at M. H. W. S. Not in use
- B 205.7m x 26.6m x 8.3m at M. H. W. S. Not in use
- C 109 m x 14.6 m x 5.4 m at M. H. W. S.

SCALE



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# SWANSEA

## Graving Docks

Dry Dock	Length		Width	
	ft	m	ft	m
No. 1	670	204	92	28
No. 2	560	170	75	22

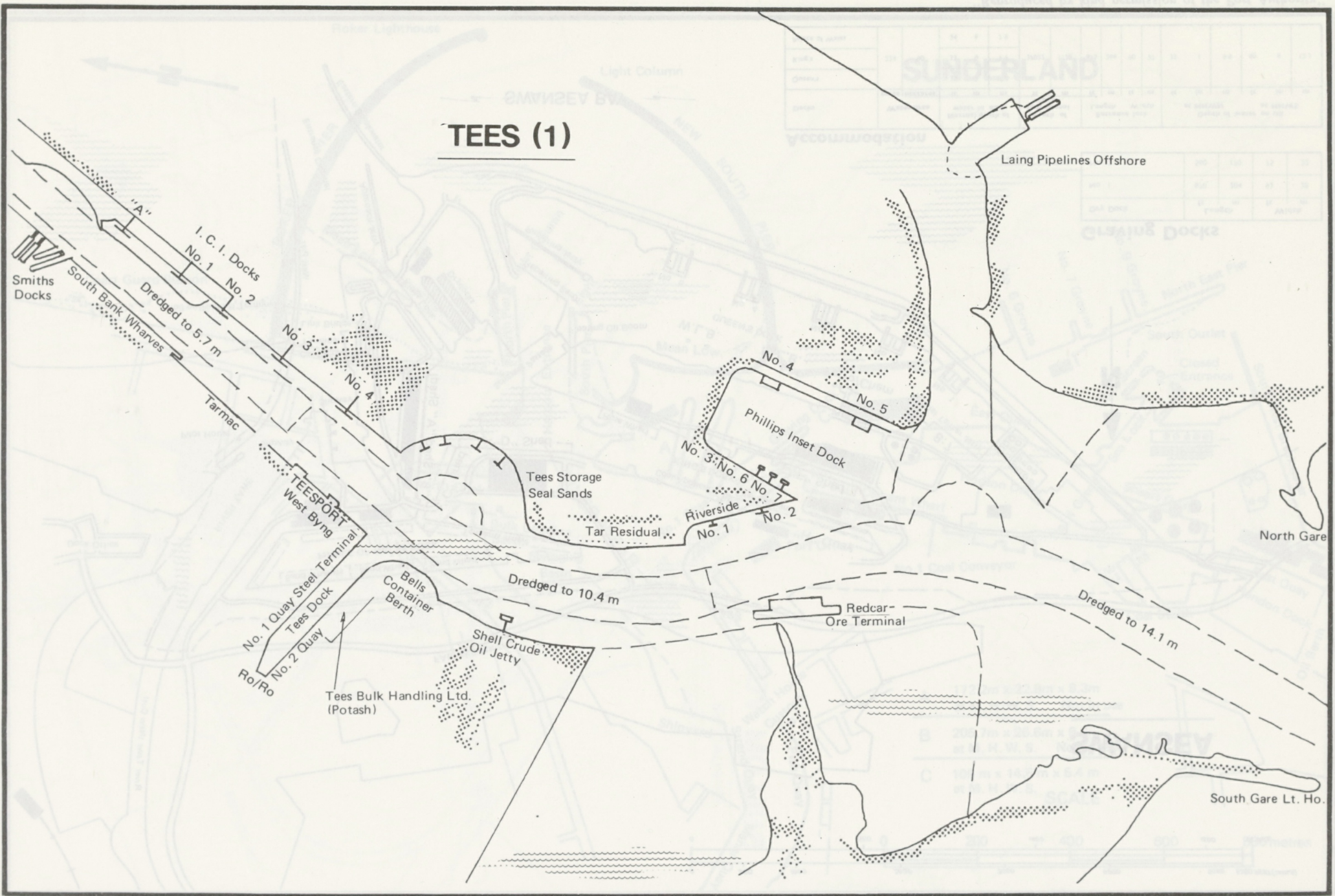
## Accommodation

Docks	Water area		Normal depth of water in dock			Length of operational quays		Entrance lock				Depth of water on sill					
								Length	Width	Length	Width	at MHWN			at MHWS		
	acres	hectares	ft	in	m	ft	m	ft	m	ft	m	ft	in	m	ft	in	m
Queen's			35	0	10.6												
King's	224	90	33	0	9.9	37022	1128	875	266	90	27	33	1	9.9	40	6	12.3
Prince of Wales			24	6	7.9												

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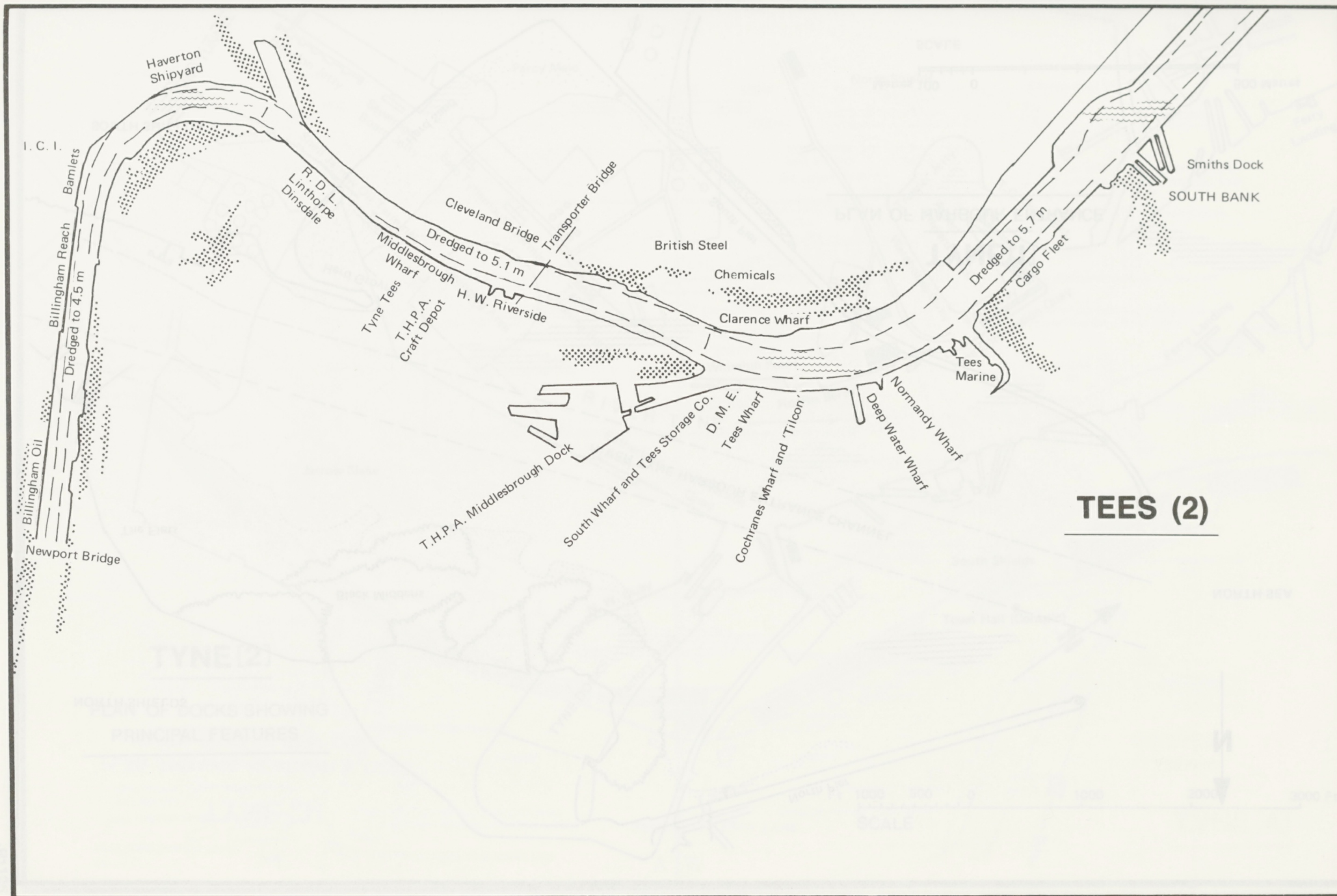


# TEES (1)



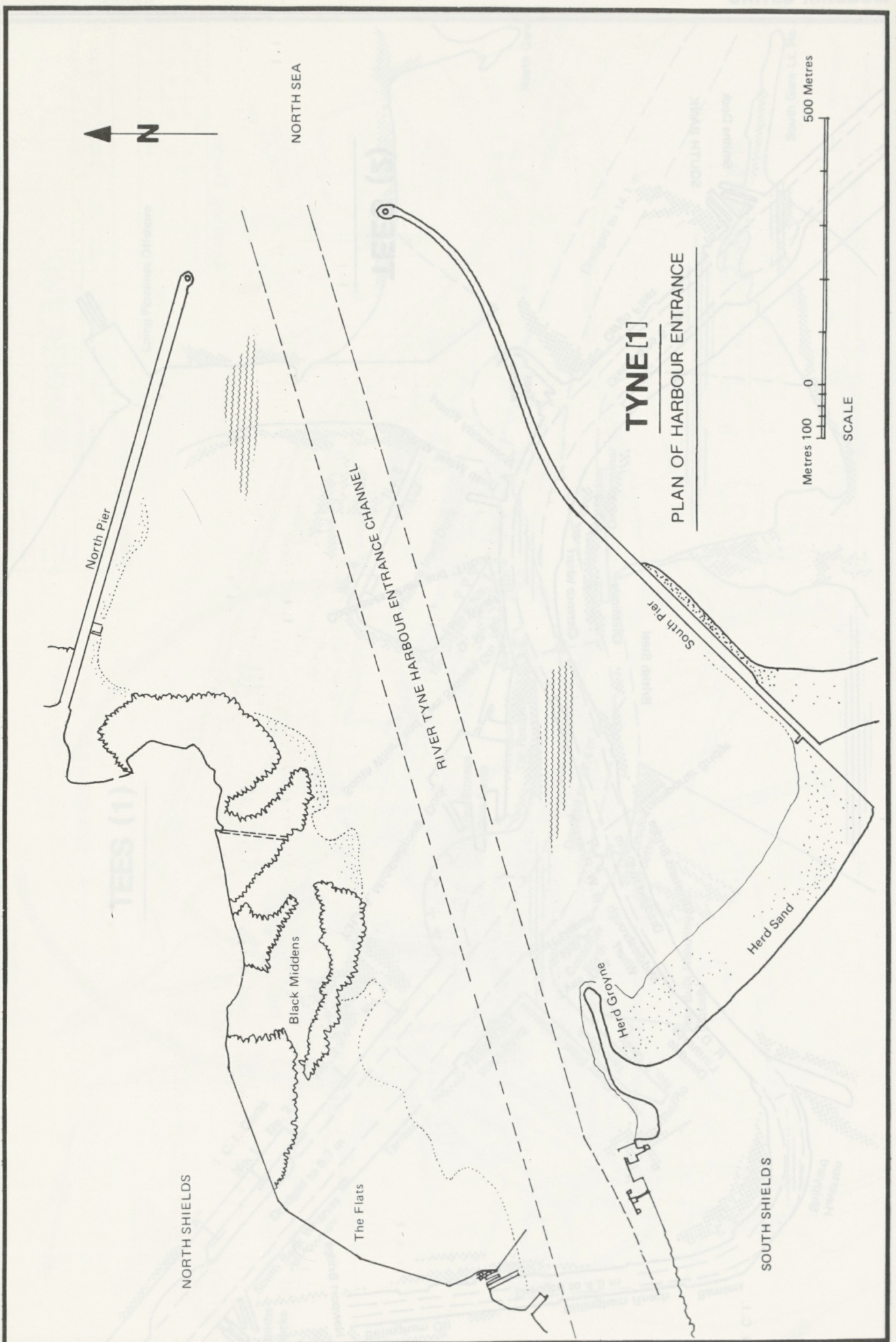
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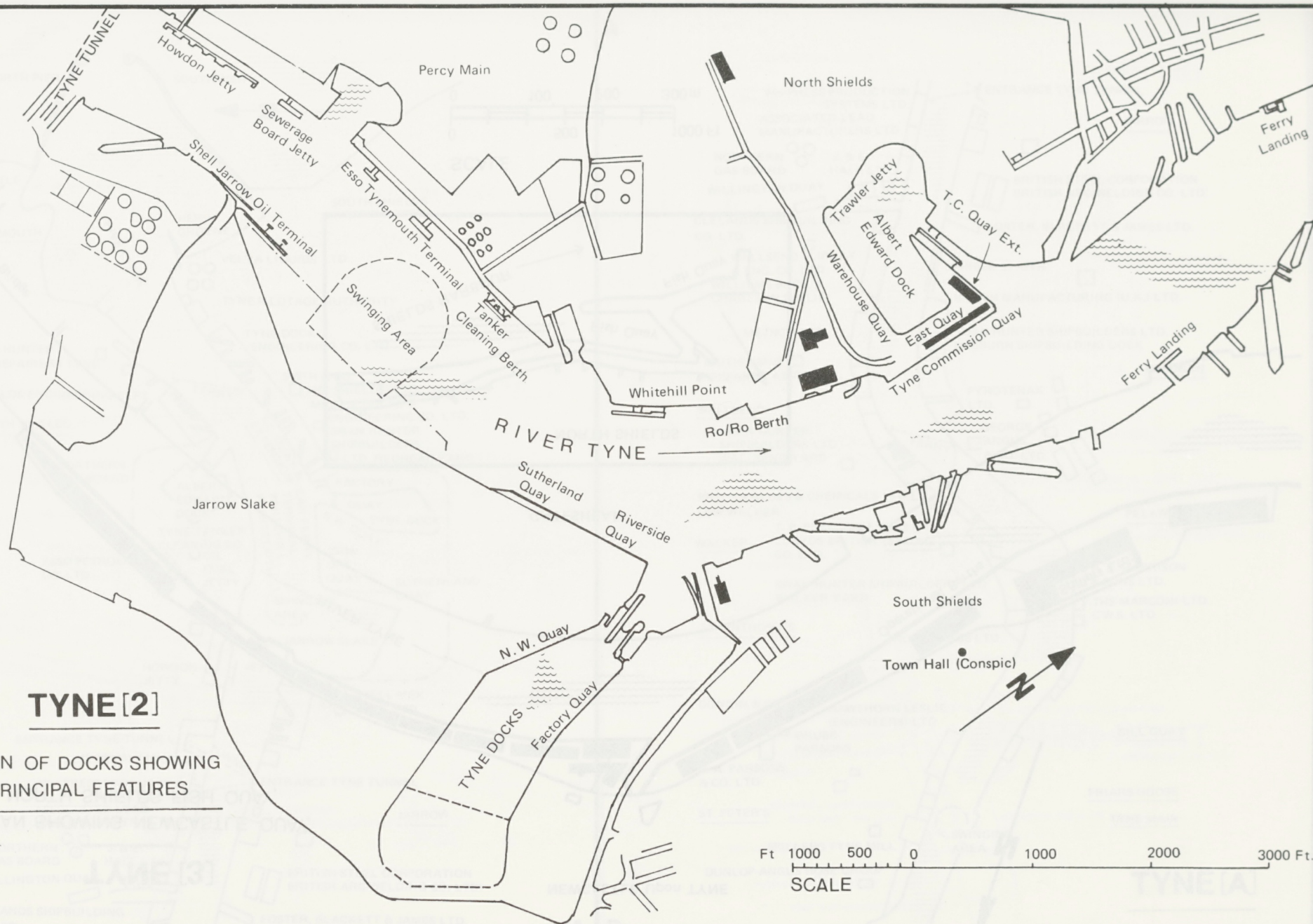






# TYNE [2]

PLAN OF DOCKS SHOWING  
PRINCIPAL FEATURES

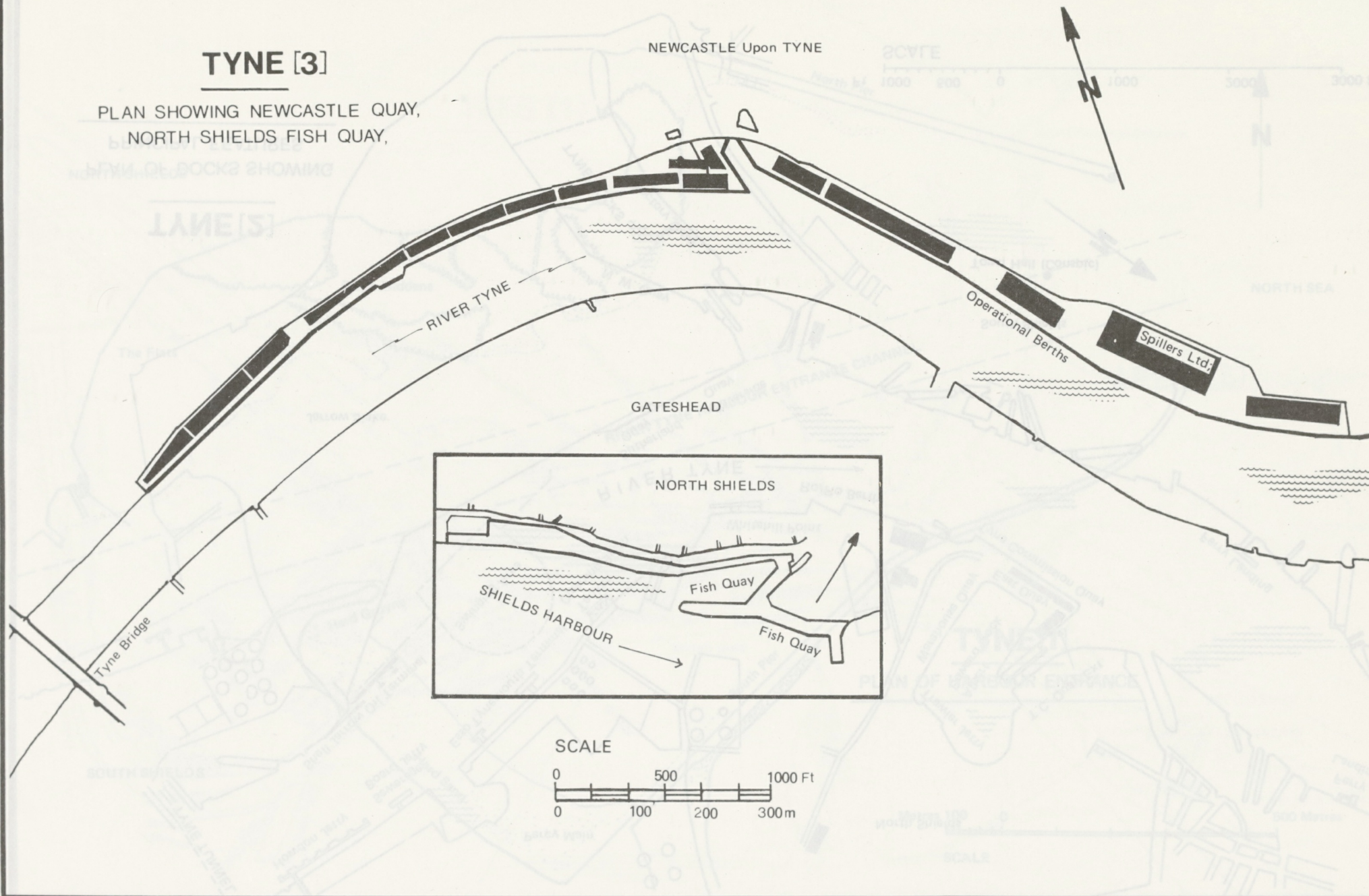


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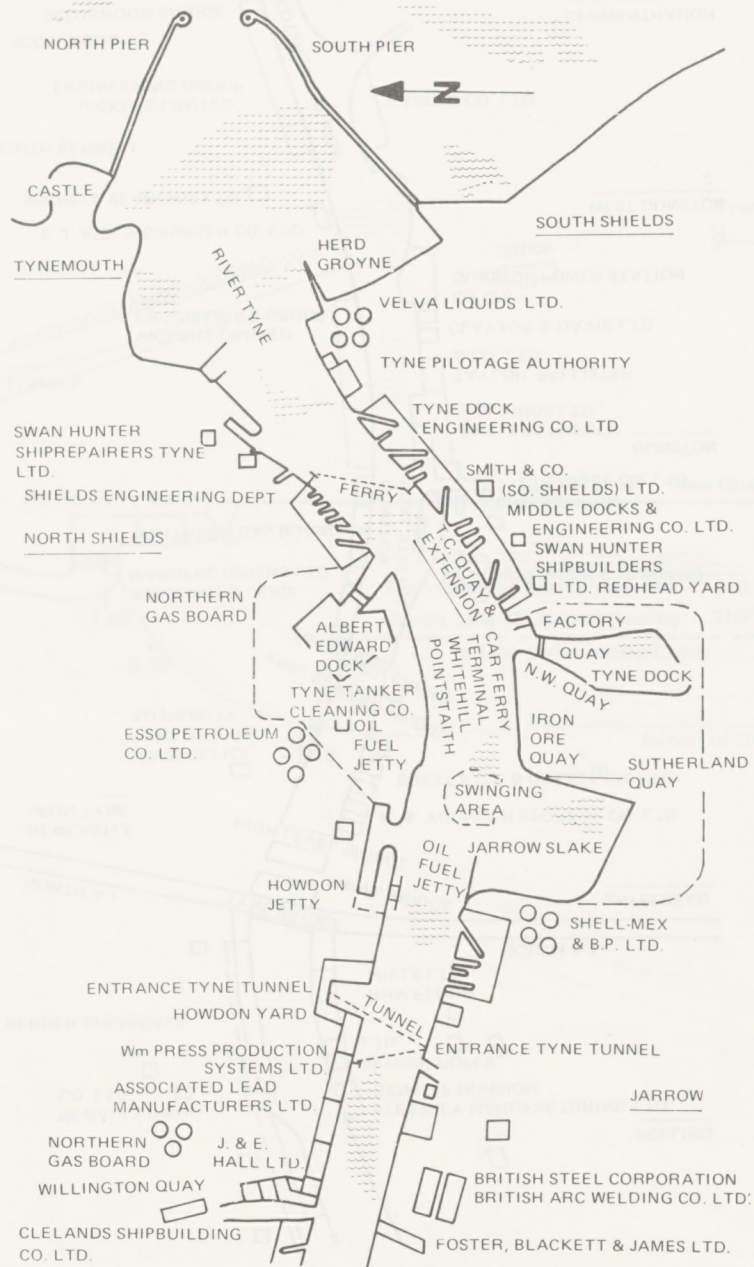


# **TYNE [3]**

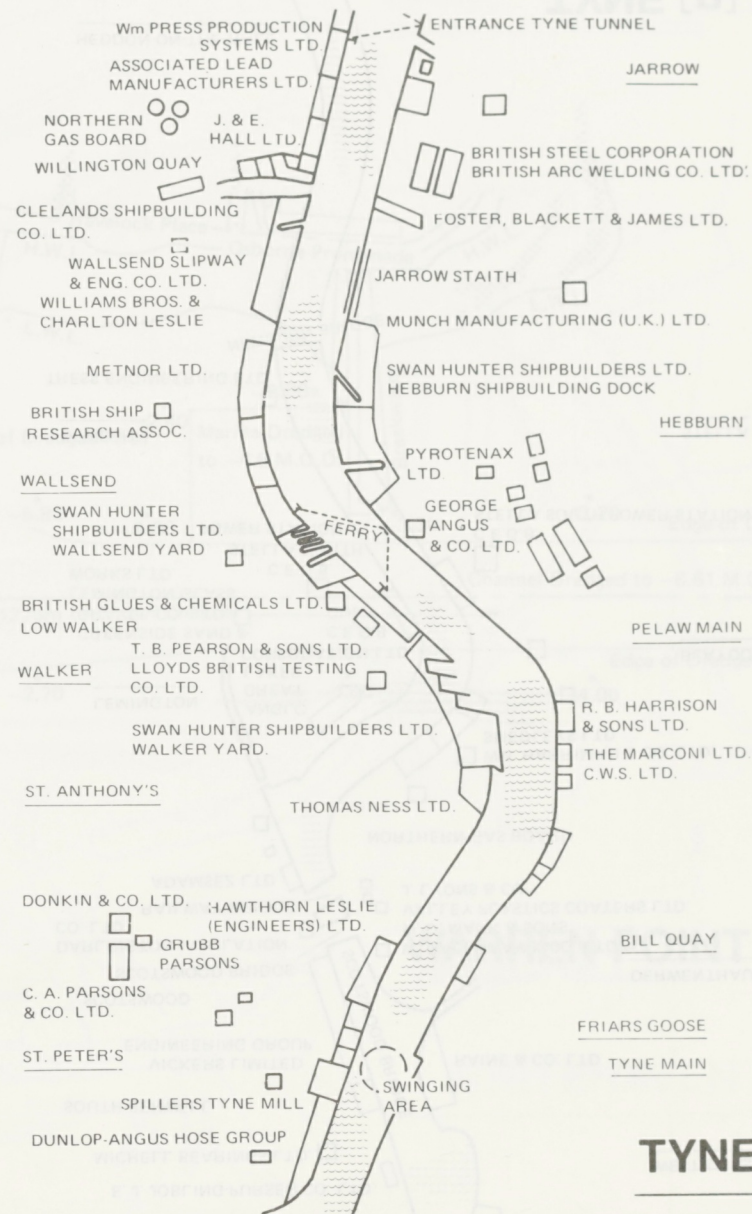
PLAN SHOWING NEWCASTLE QUAY,  
NORTH SHIELDS FISH QUAY,







**A B**



**TYNE [A]**

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NEWCASTLE Upon TYNE

RIVER TYNE

GATESHEAD

Operational Berths

Spillers Ltd.

NORTH SHIELDS

Fish Quay

Fish Quay

SHIELDS HARBOUR

Tyne Bridge

SCALE

A horizontal scale bar with two sets of markings. The top set is in feet, with major ticks at 0, 500, and 1000. The bottom set is in meters, with major ticks at 0, 100, 200, and 300. The bar is divided into segments by vertical lines corresponding to these ticks.

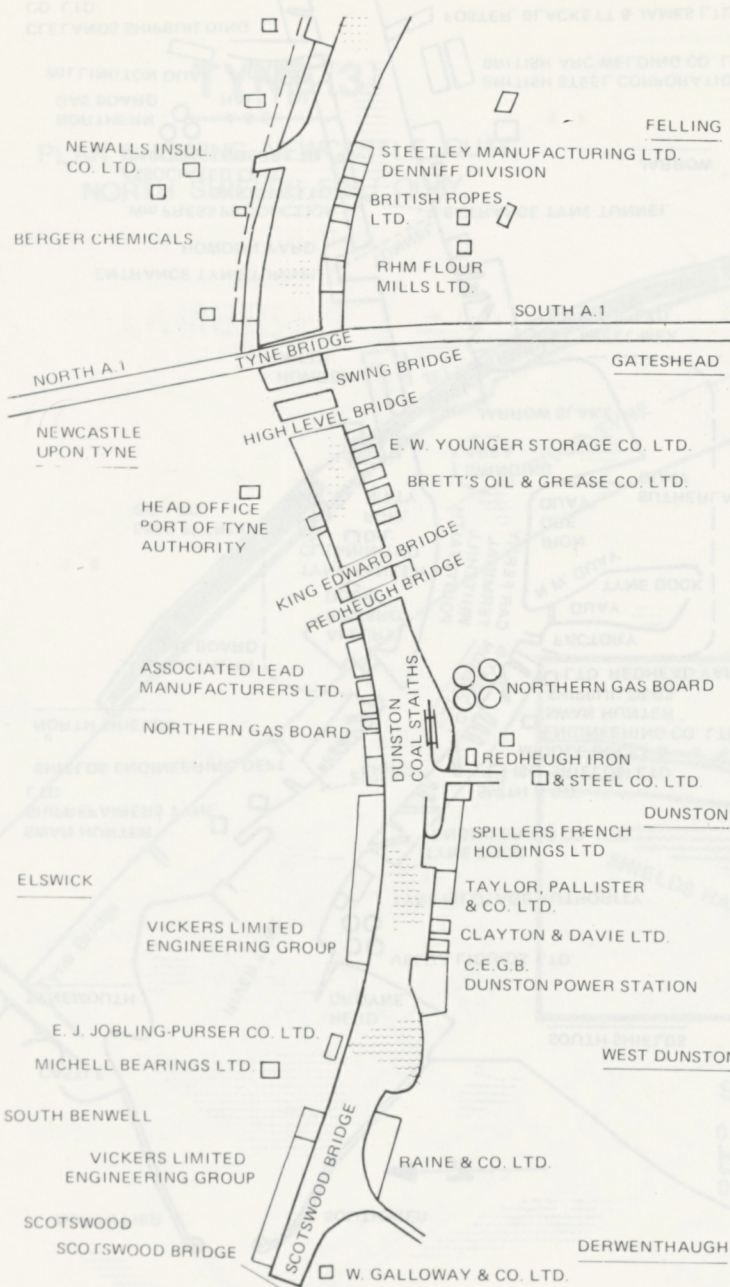
*"Reproduced by kind permission of the Port Authority".*



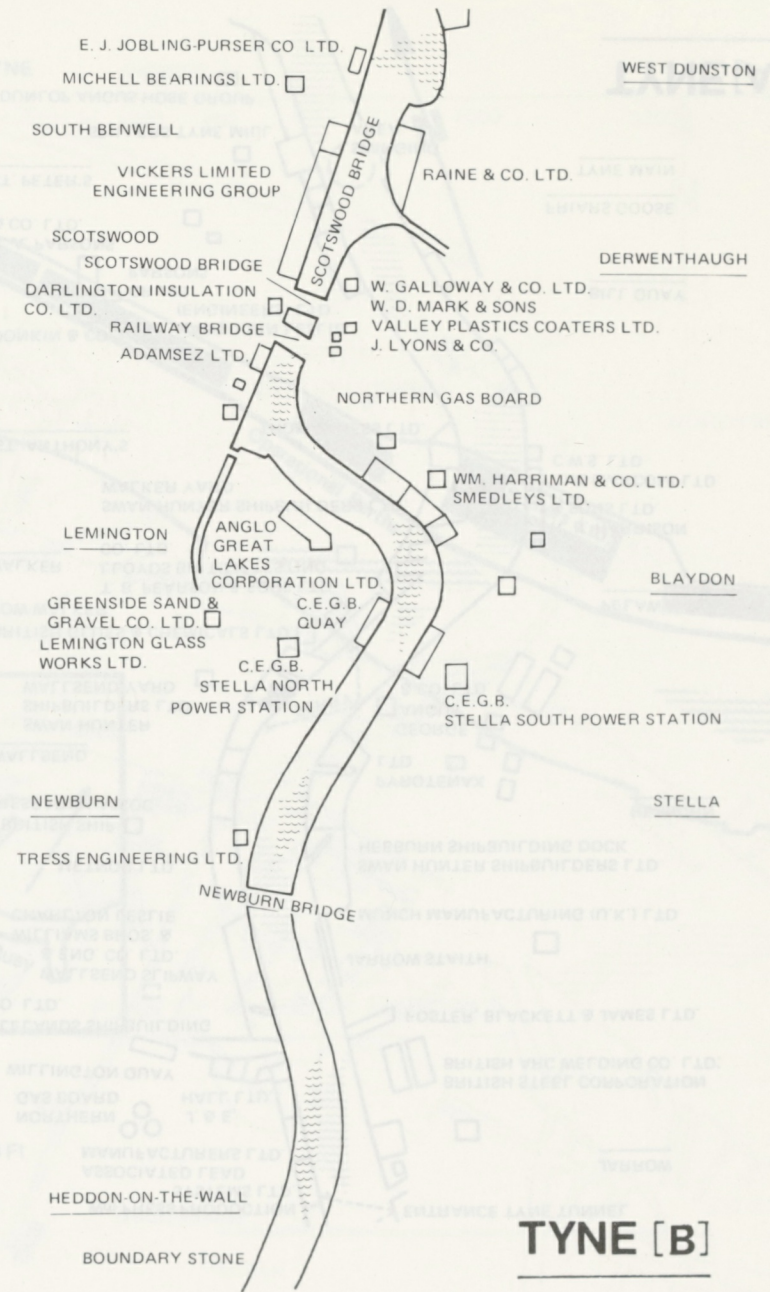




B



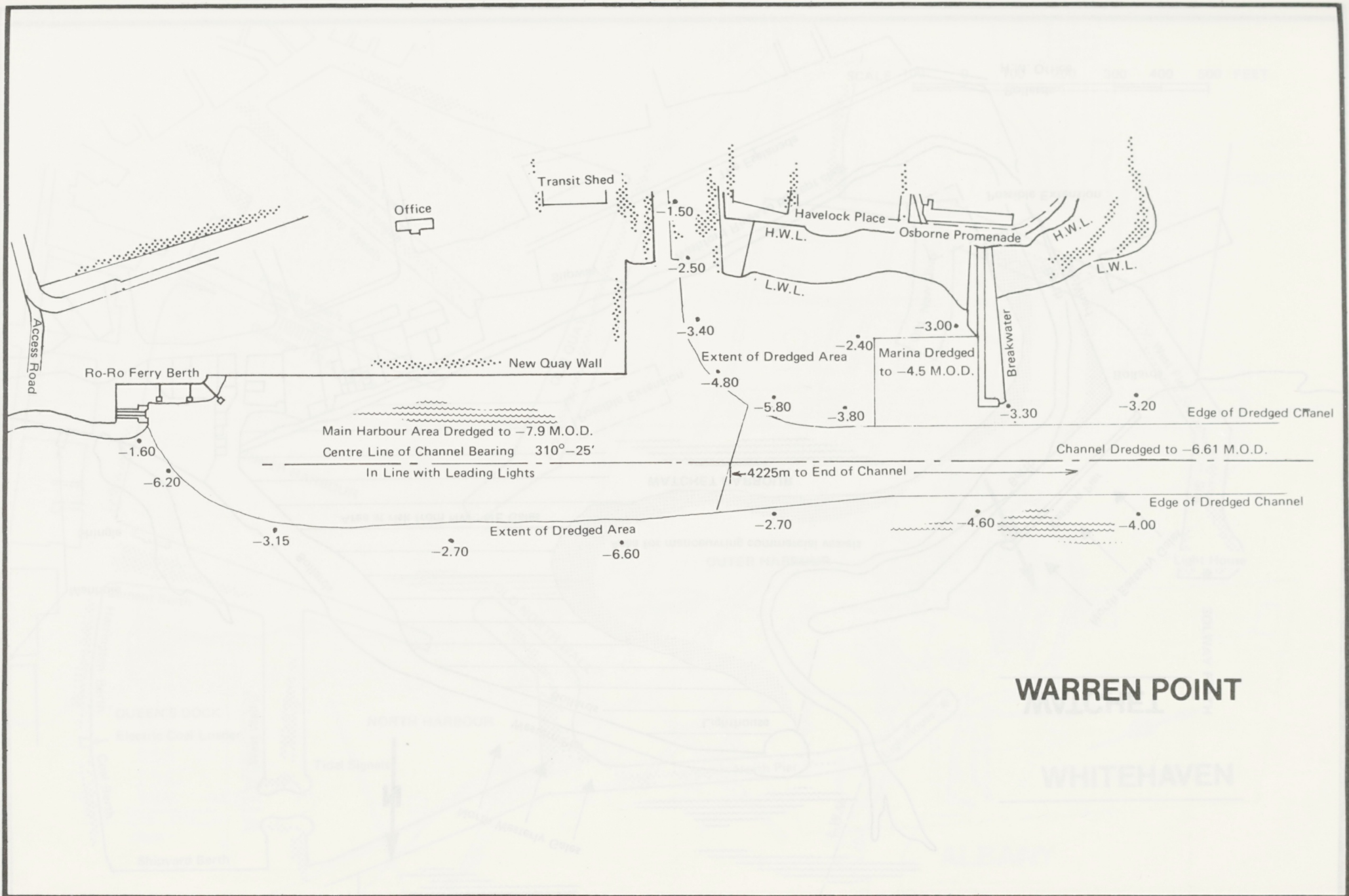
C



TYNE [B]

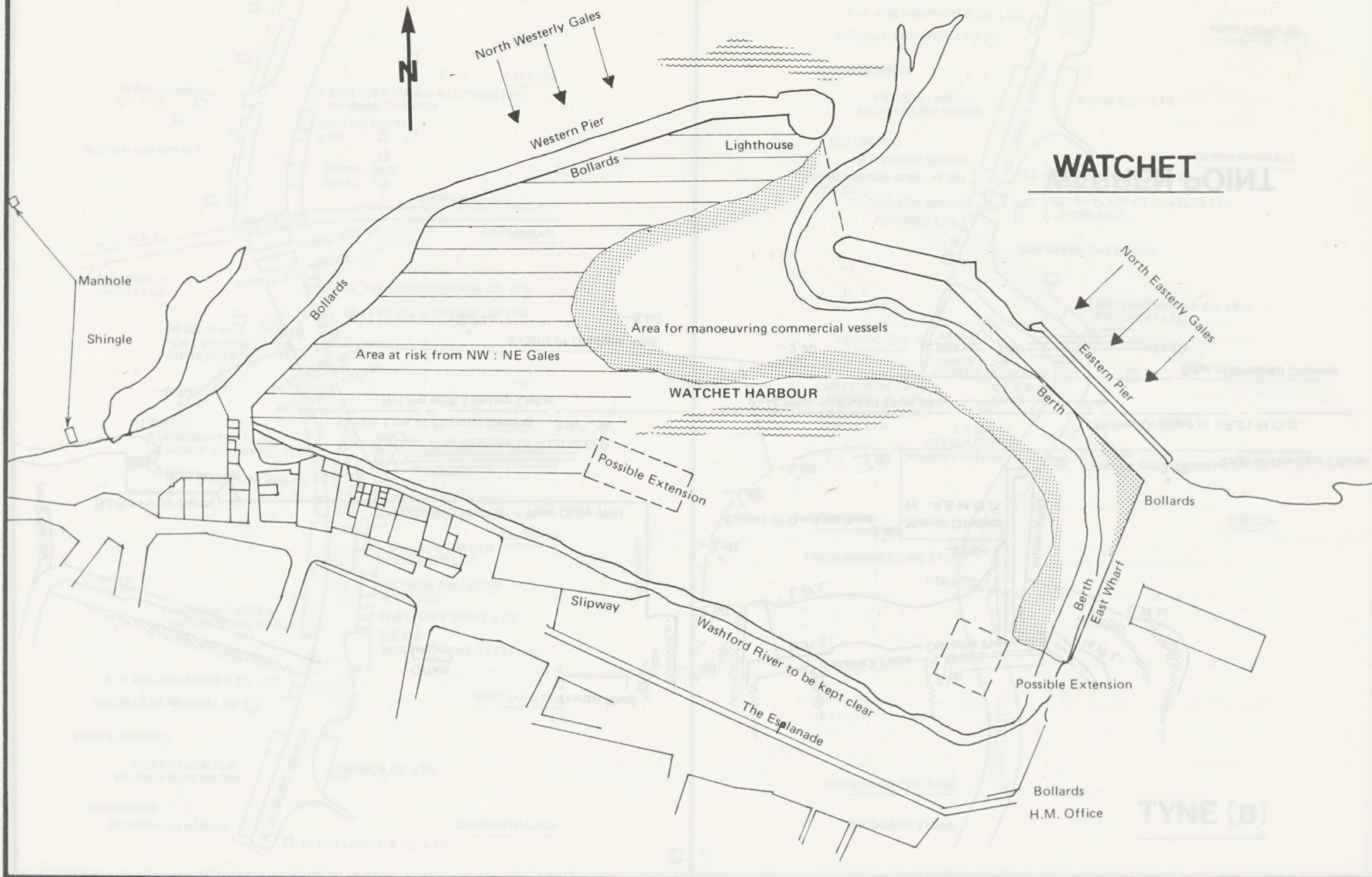
C



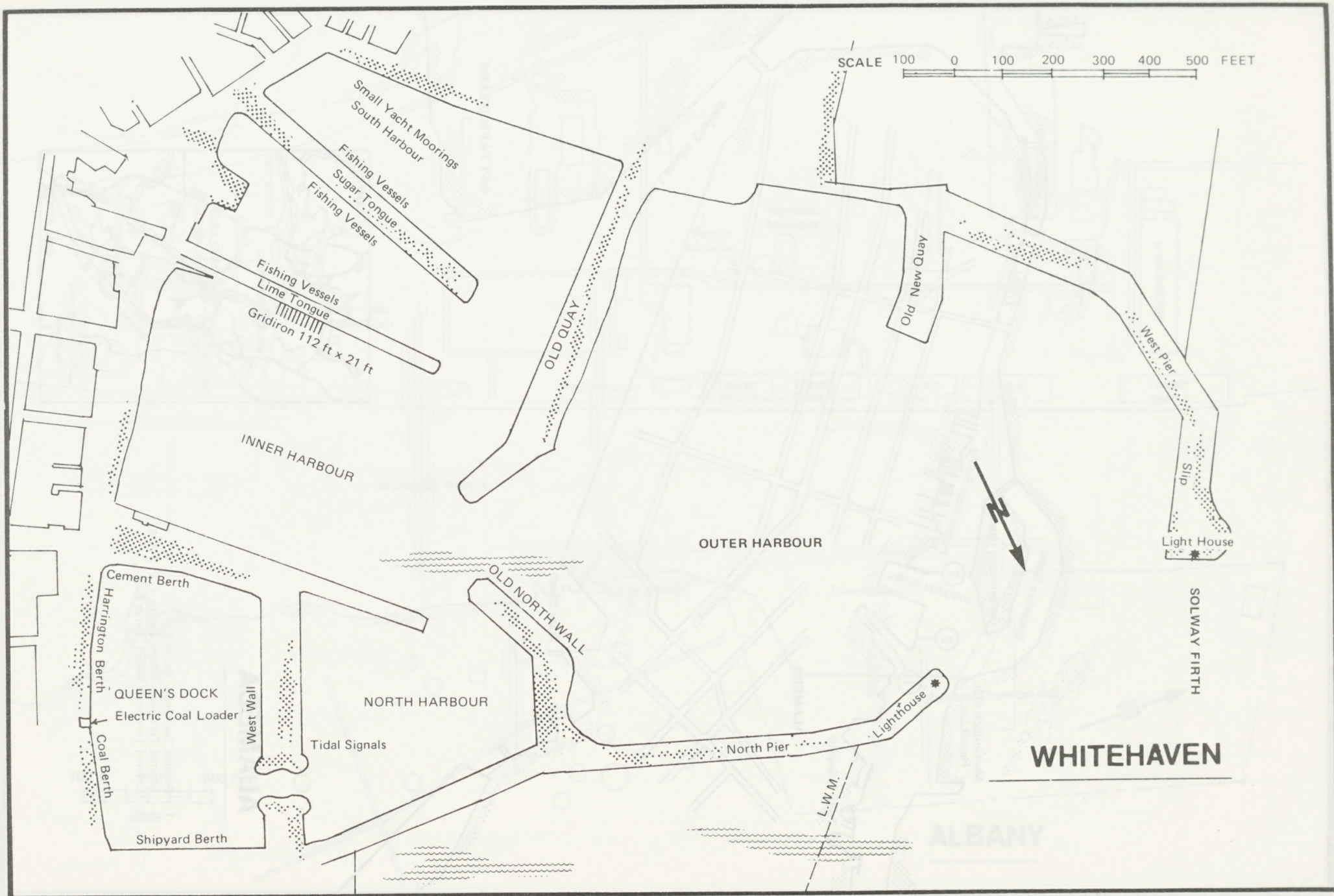


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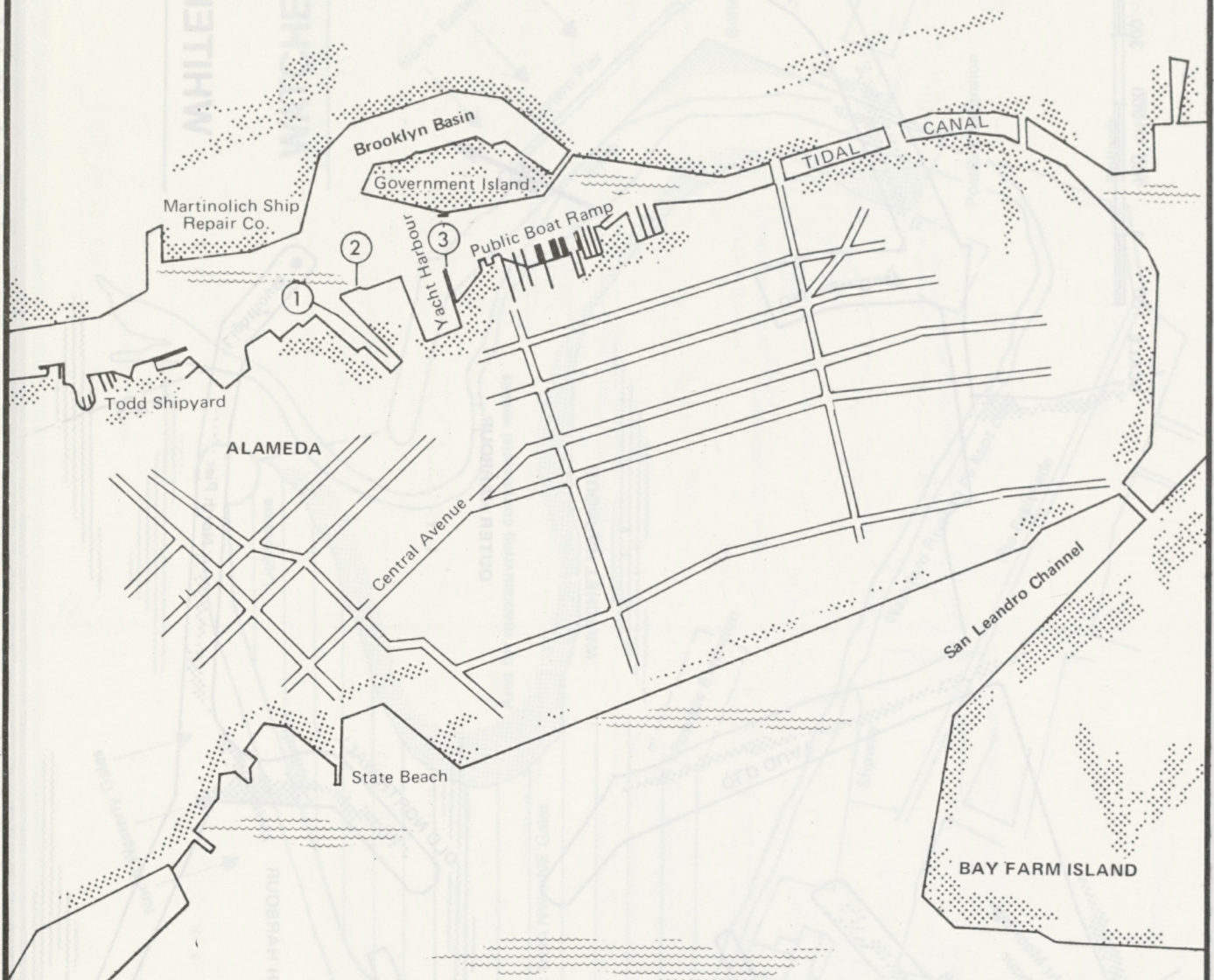






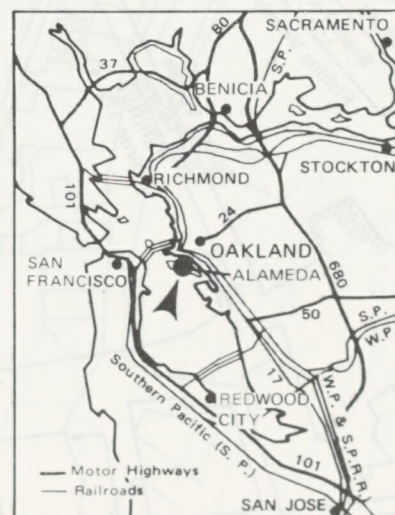




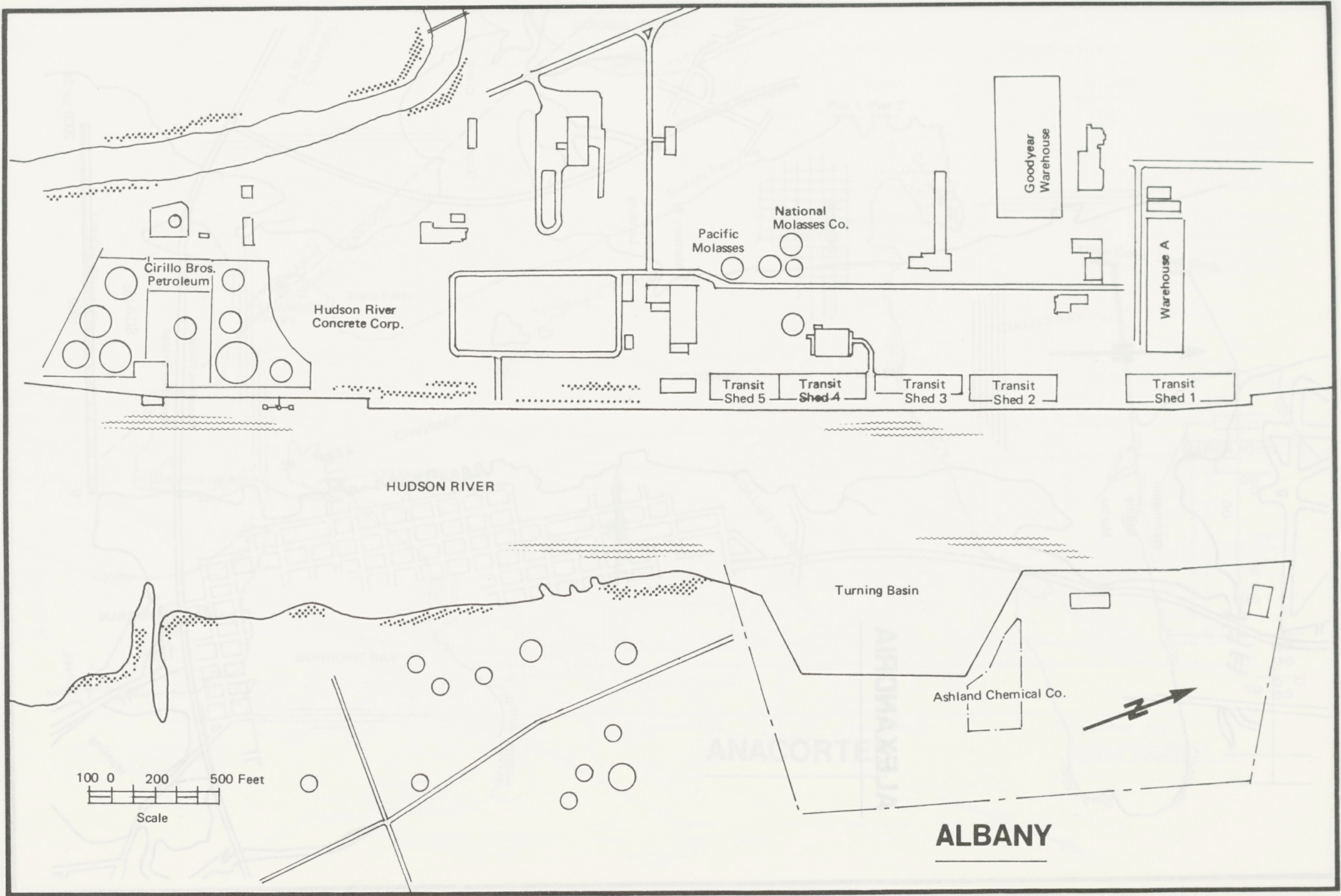


## ALAMEDA

1. Encinal Terminals, Berth 5.
2. Encinal Terminals Wharf, Berths 1, 2, 3 & 4.
3. Encinal Terminals Wharf, Berth 6.

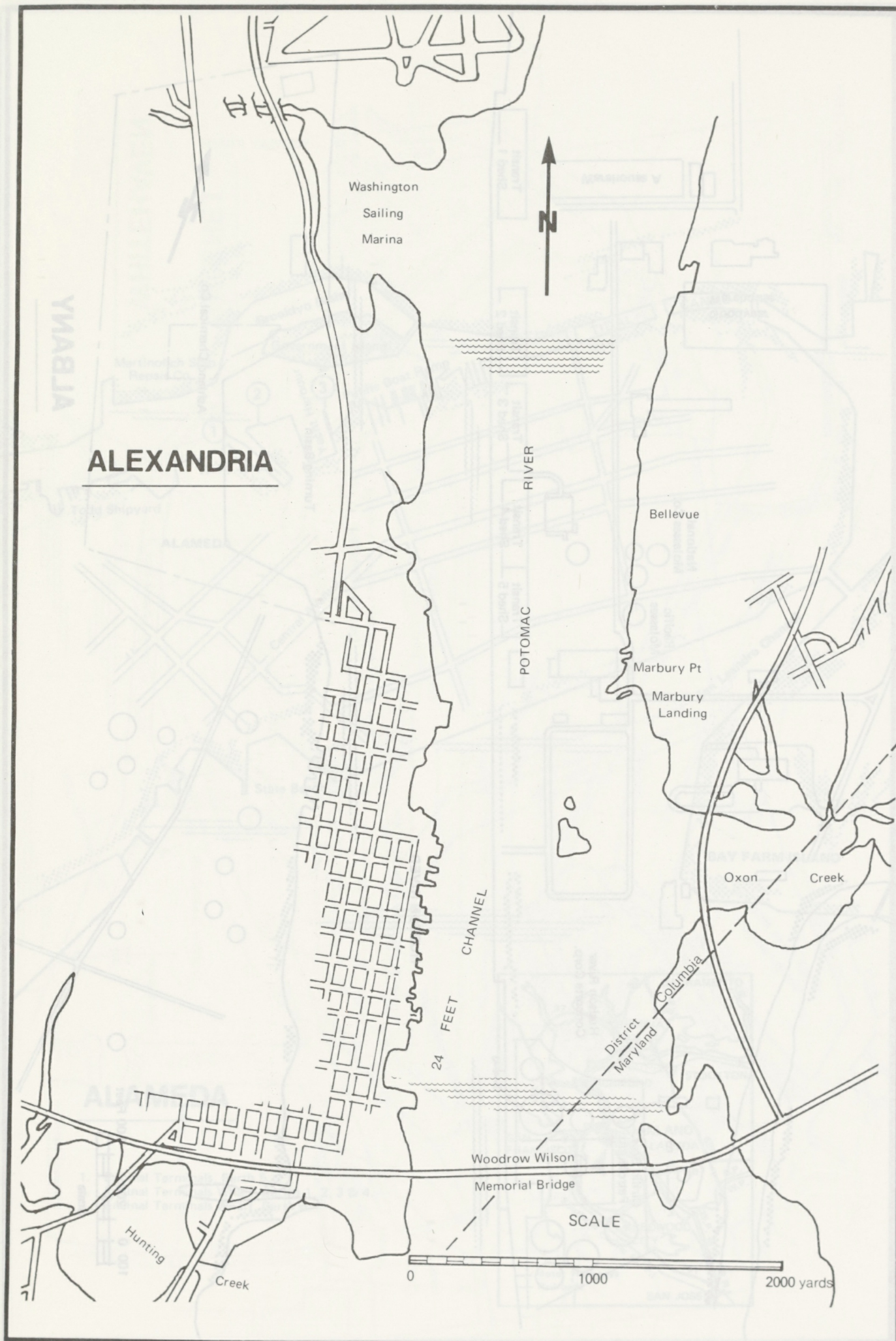




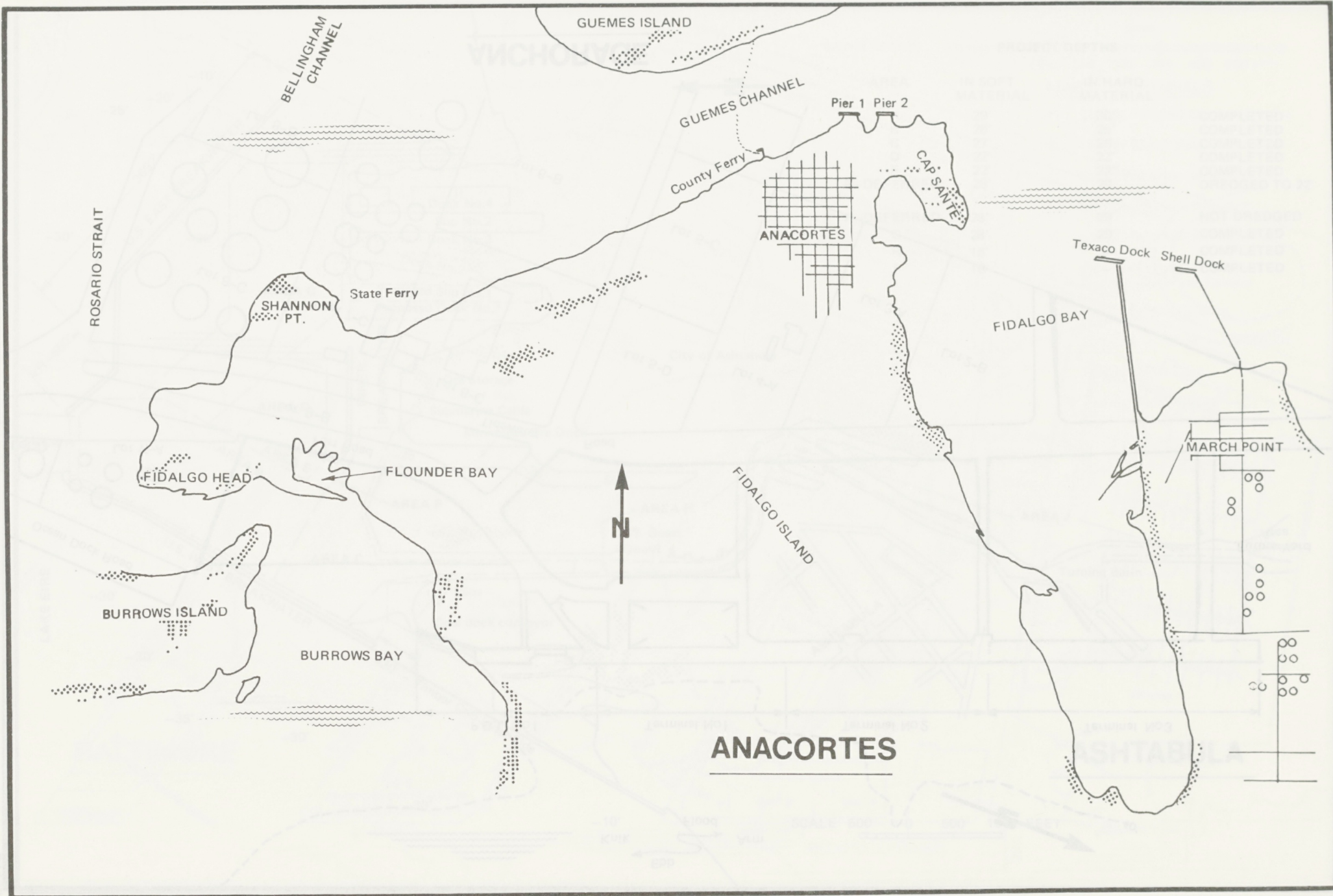


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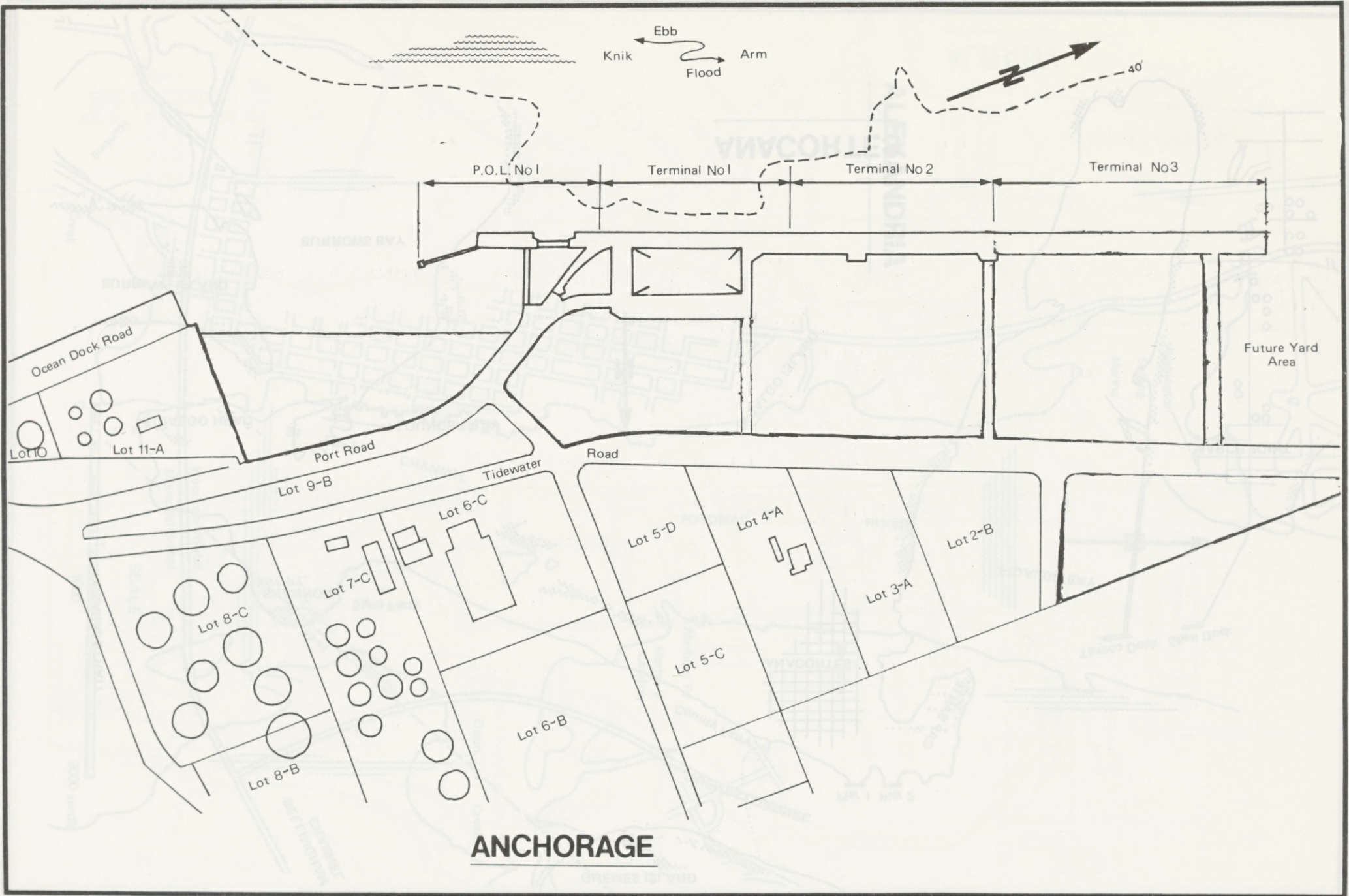






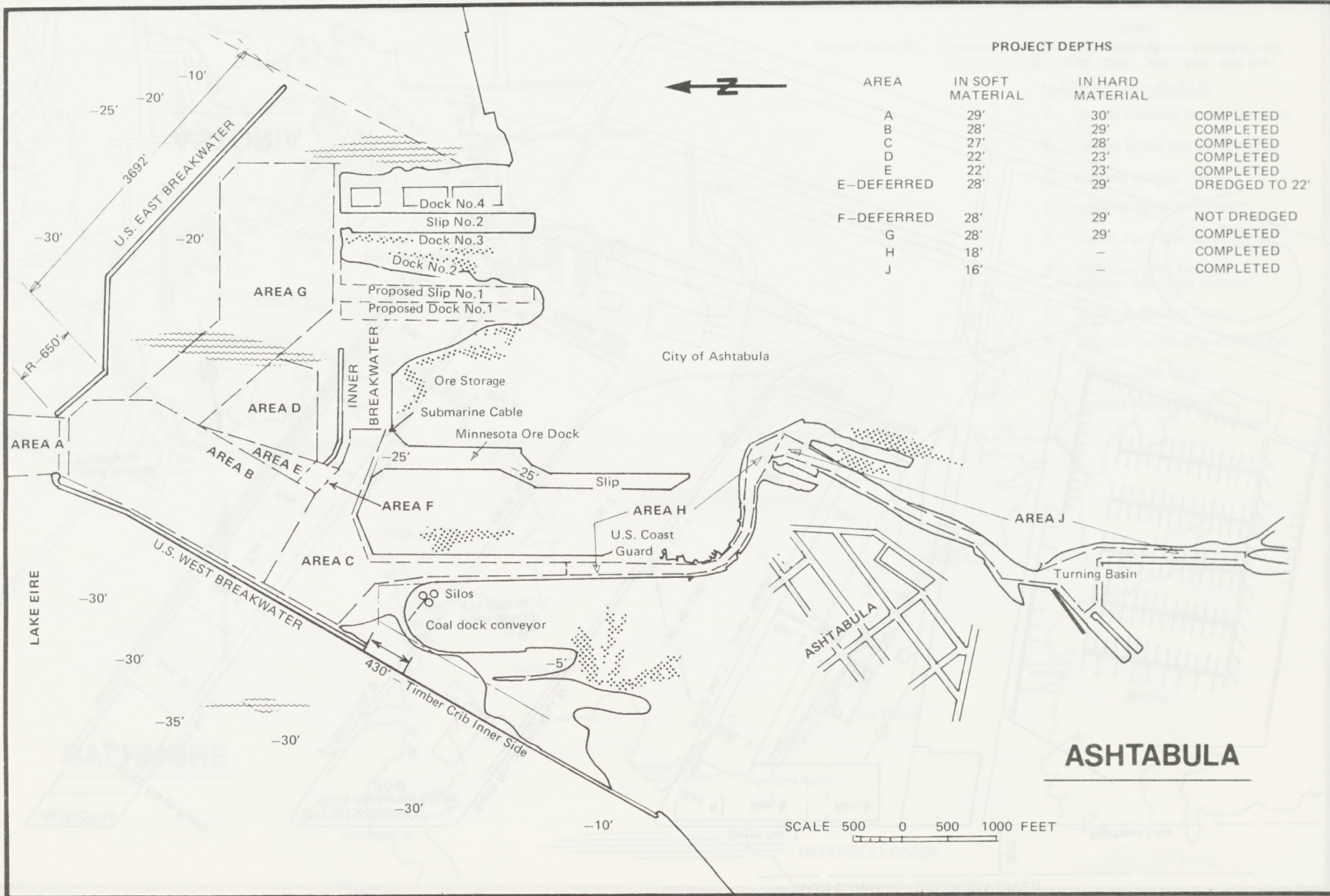
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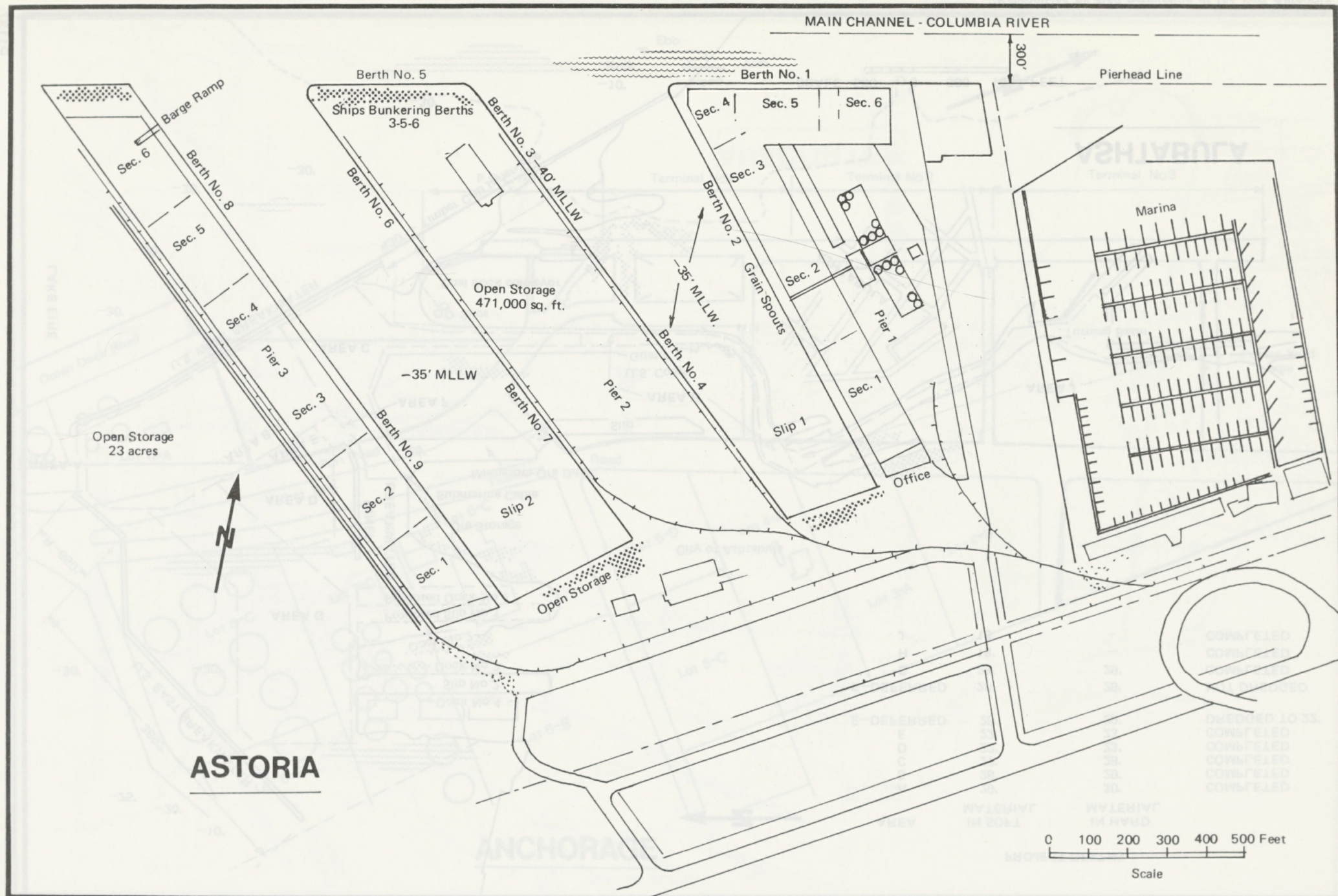
**ANCHORAGE**



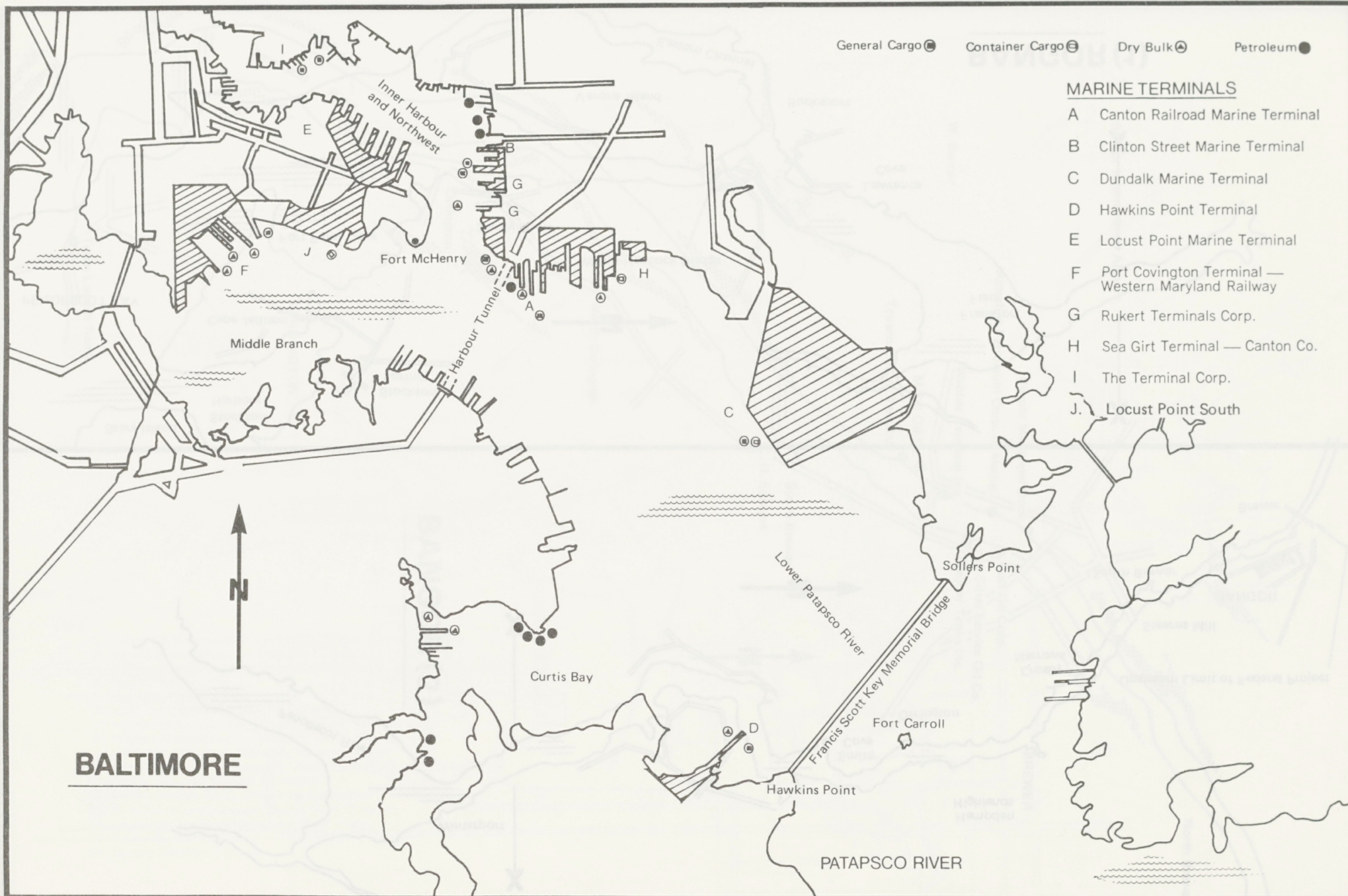


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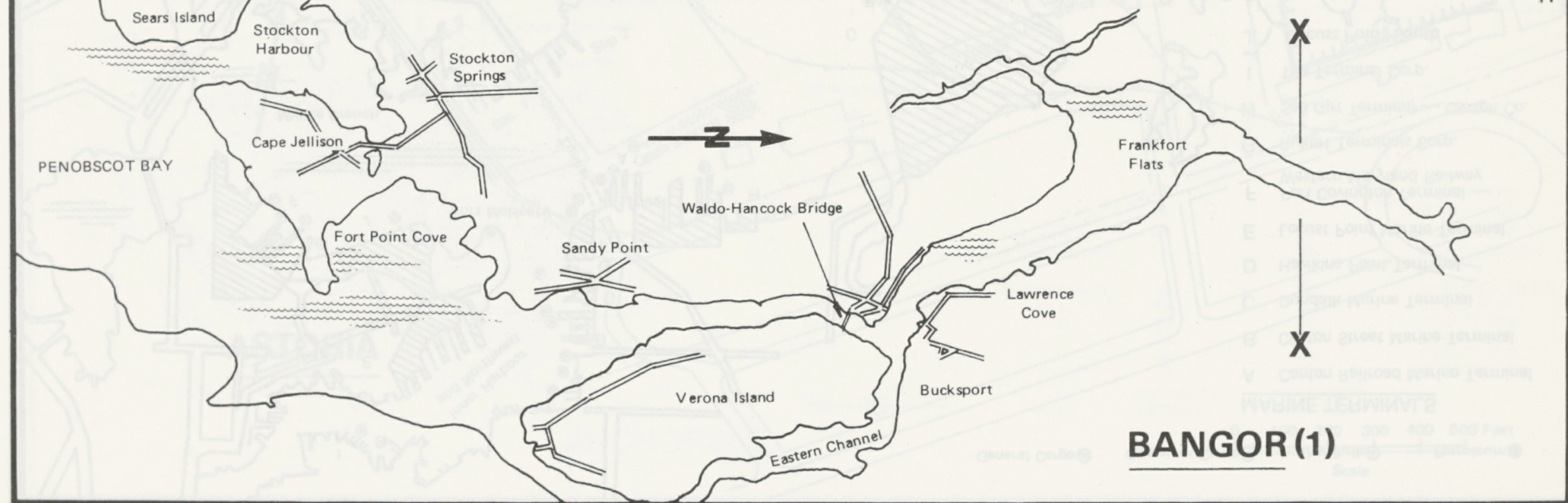
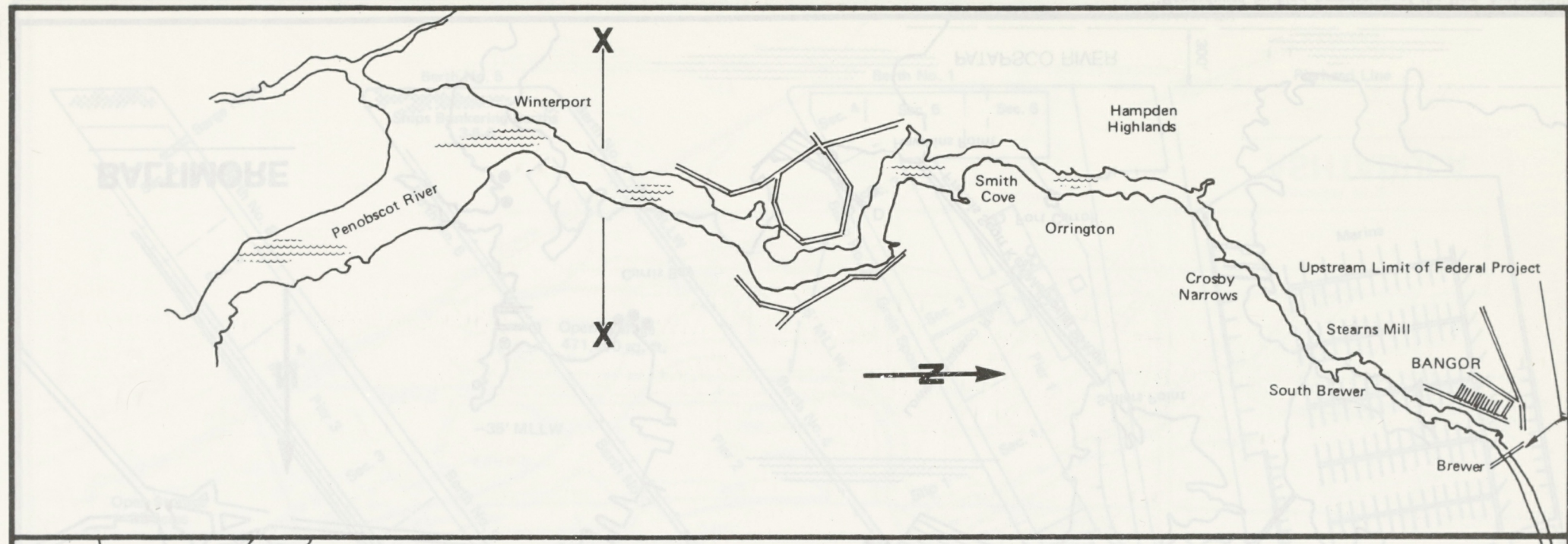






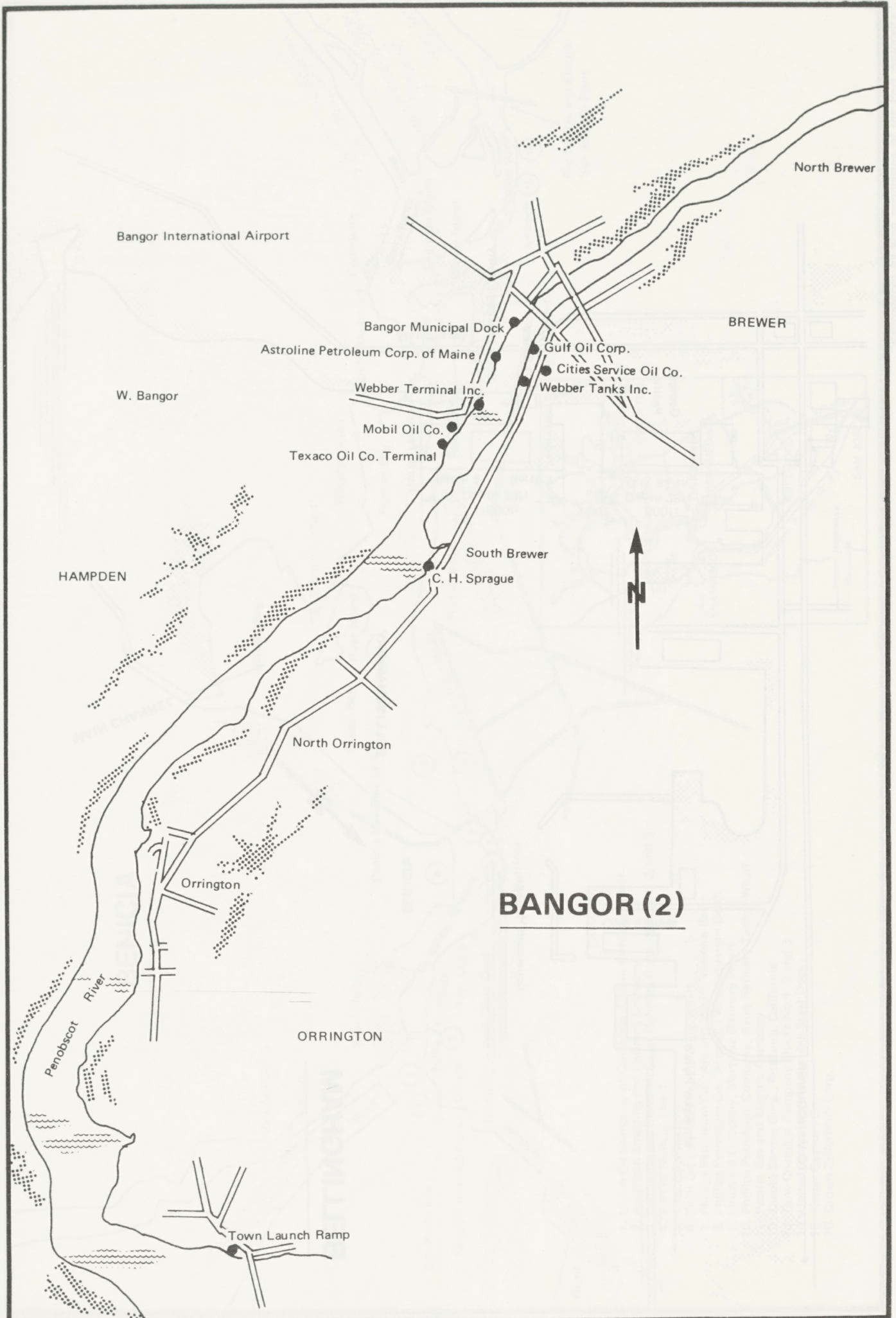
"Reproduced by kind permission of the Port Authority".



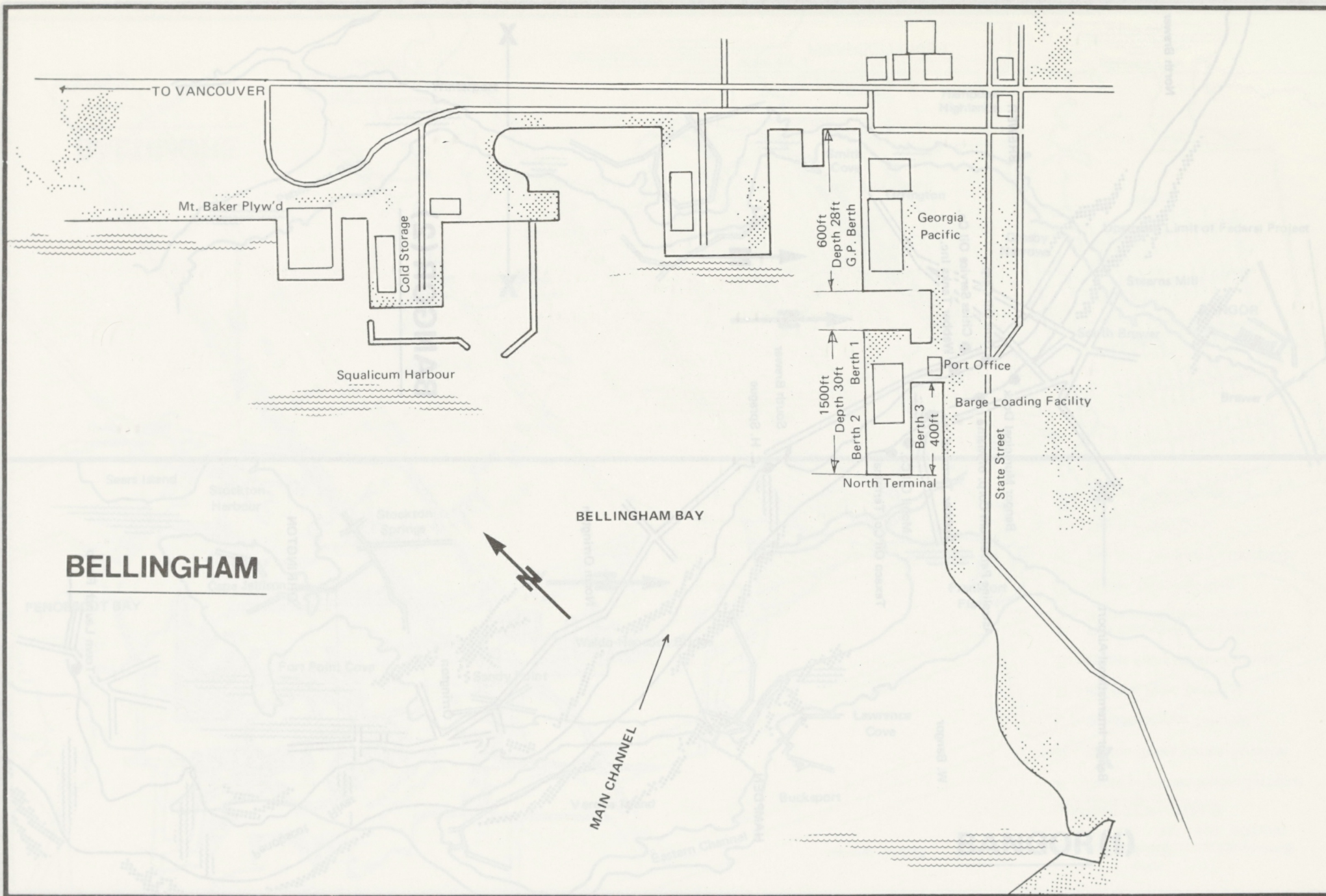


# **BANGOR (1)**









# **BELLINGHAM**

BELLINGHAM BAY

MAIN CHANNEL

North Terminal

Barge Loading Facility

Port Office

Georgia Pacific

600ft  
Depth 28ft  
G.P. Berth

1500ft  
Depth 30ft  
Berth 1  
Berth 2

Berth 3  
400ft

State Street

Cold Storage

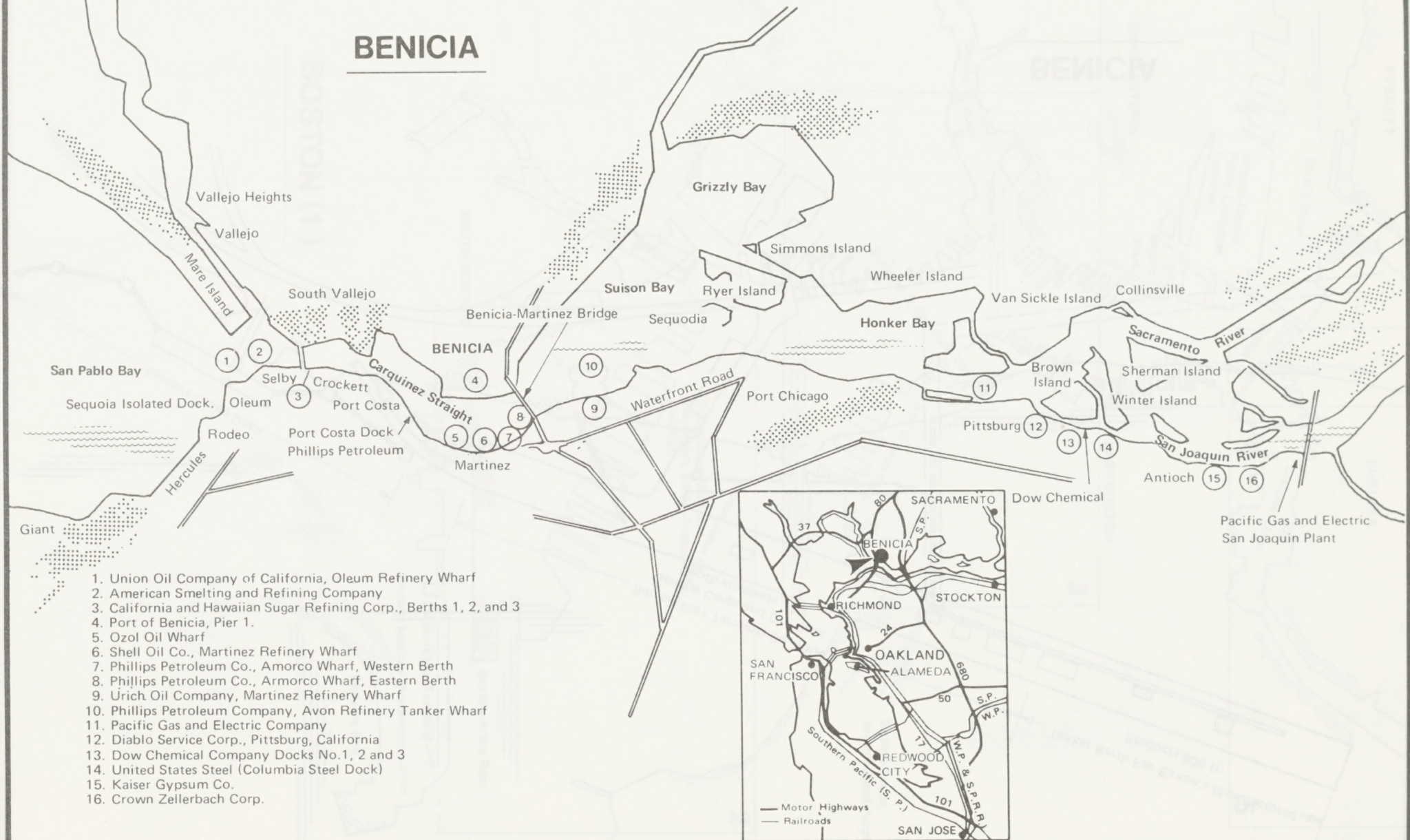
Squalicum Harbour

TO VANCOUVER

Mt. Baker Plyw'd



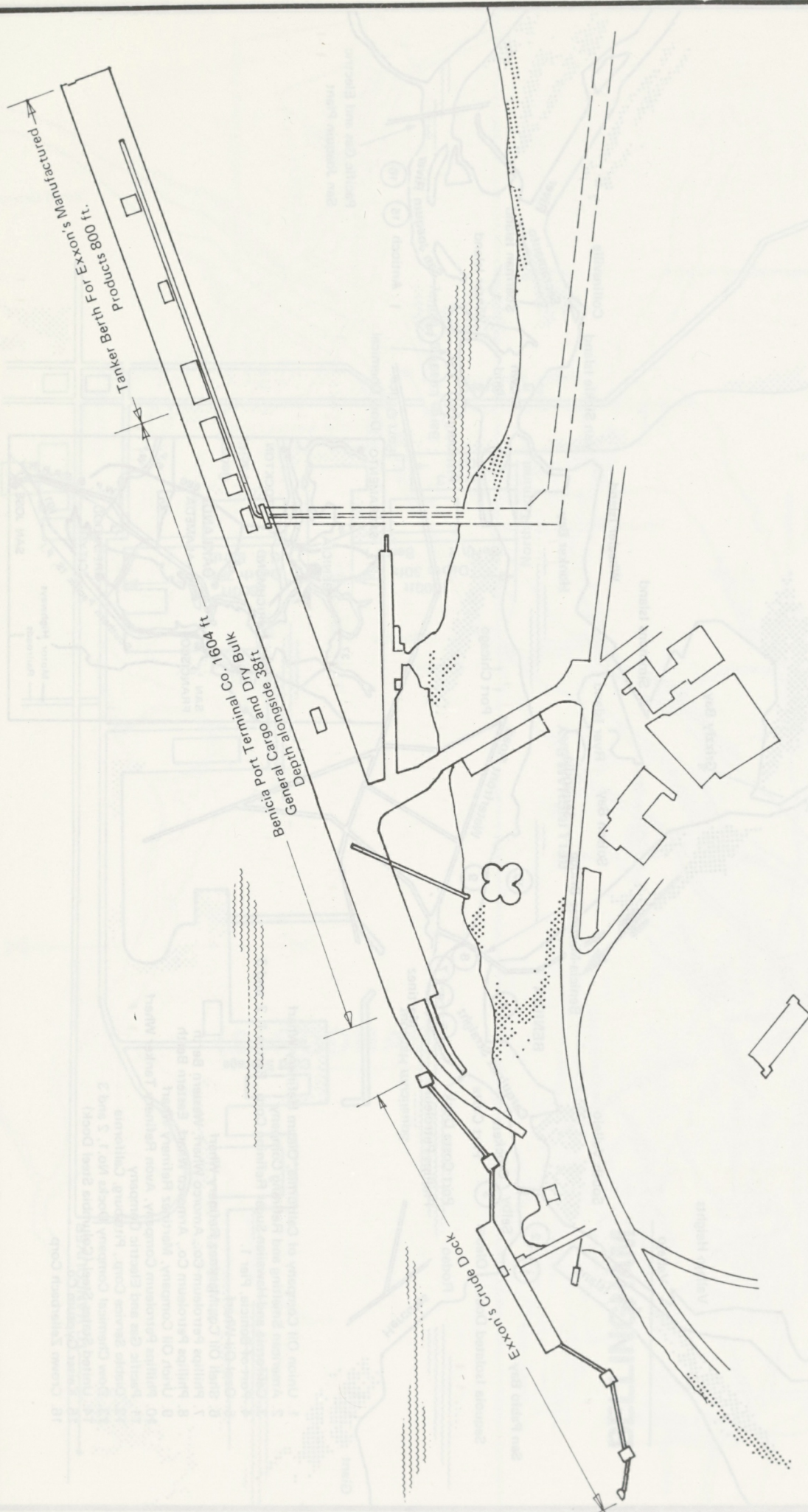
# BENICIA



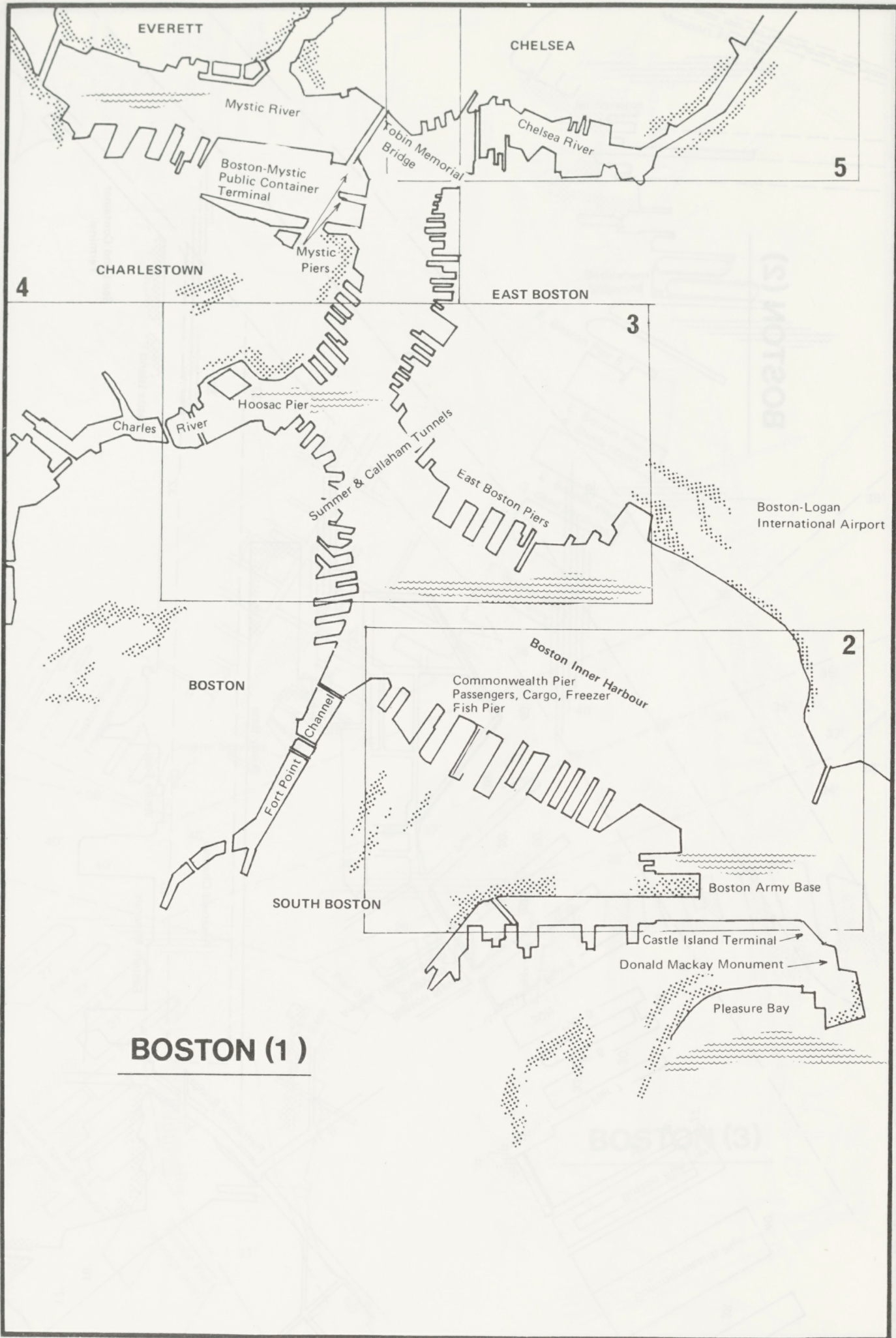
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# BENICIA





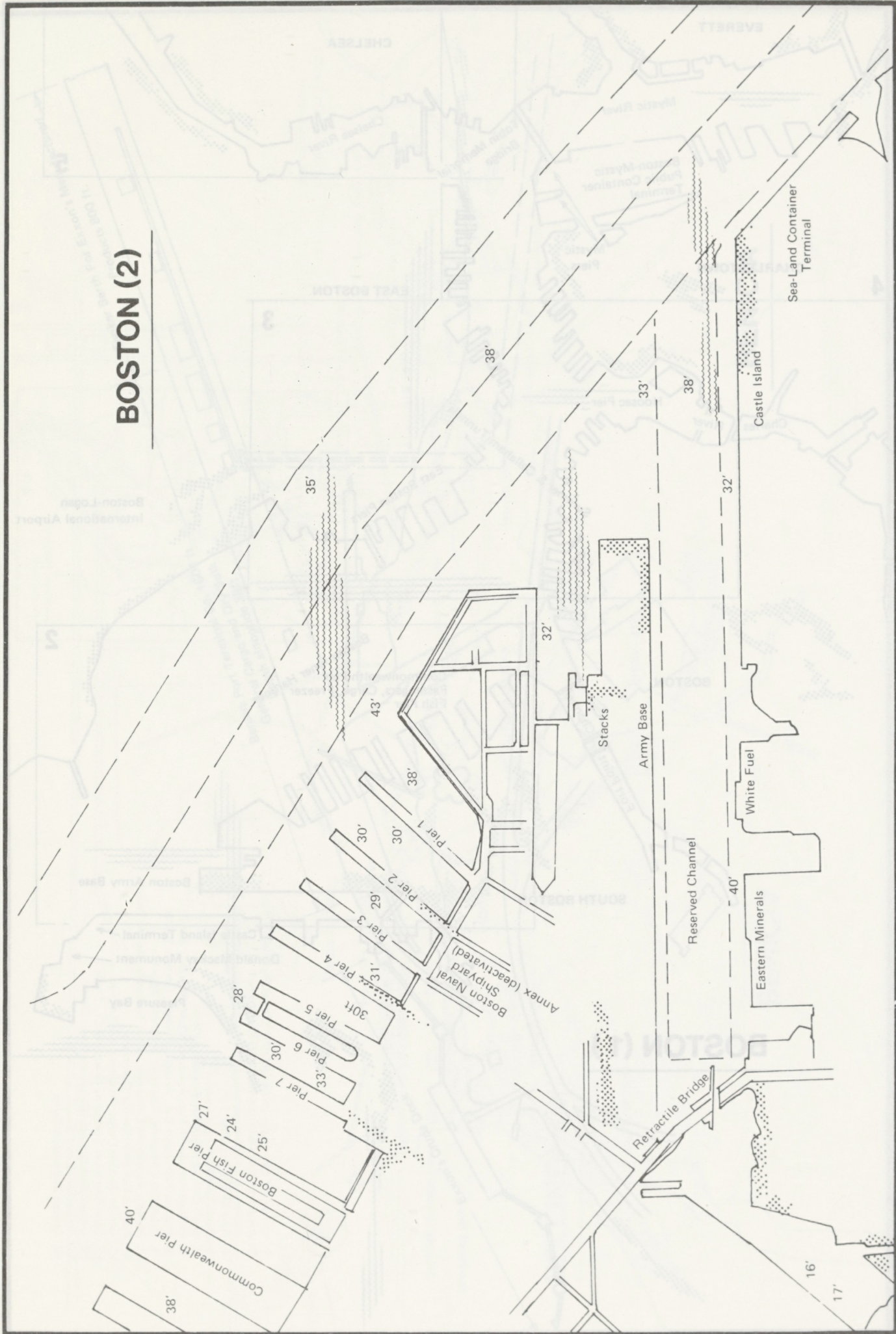


**BOSTON (1)**

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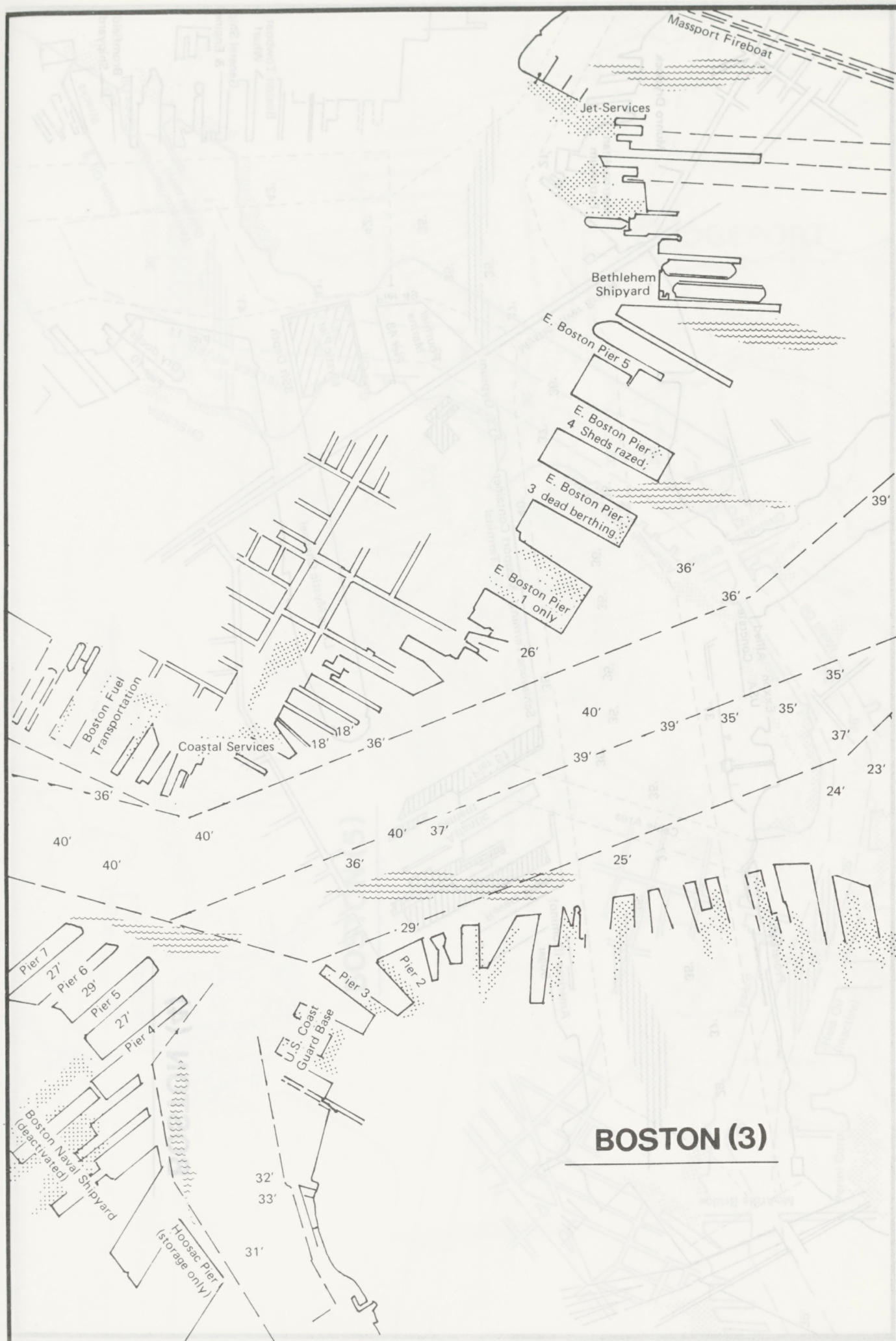


# BOSTON (2)

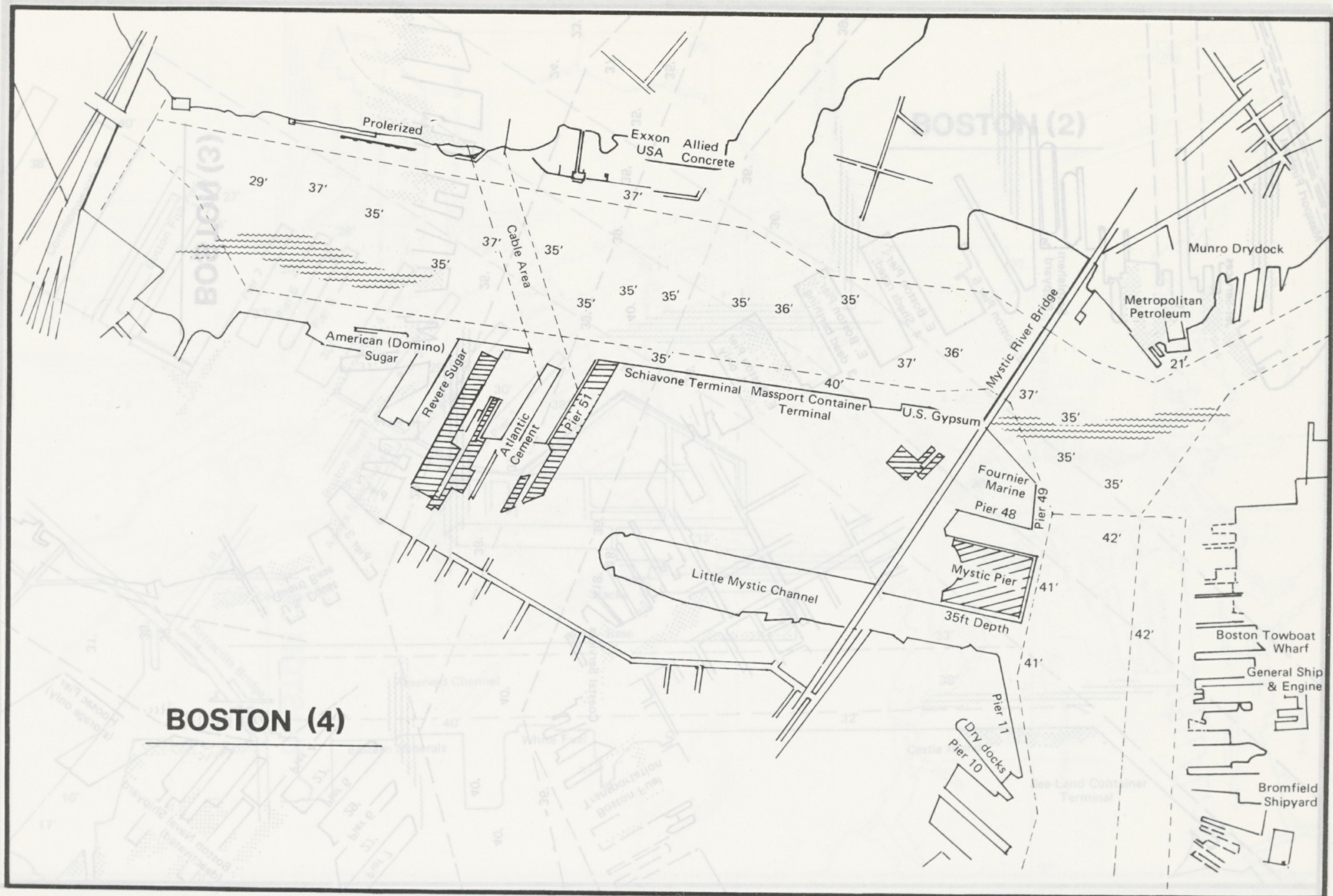


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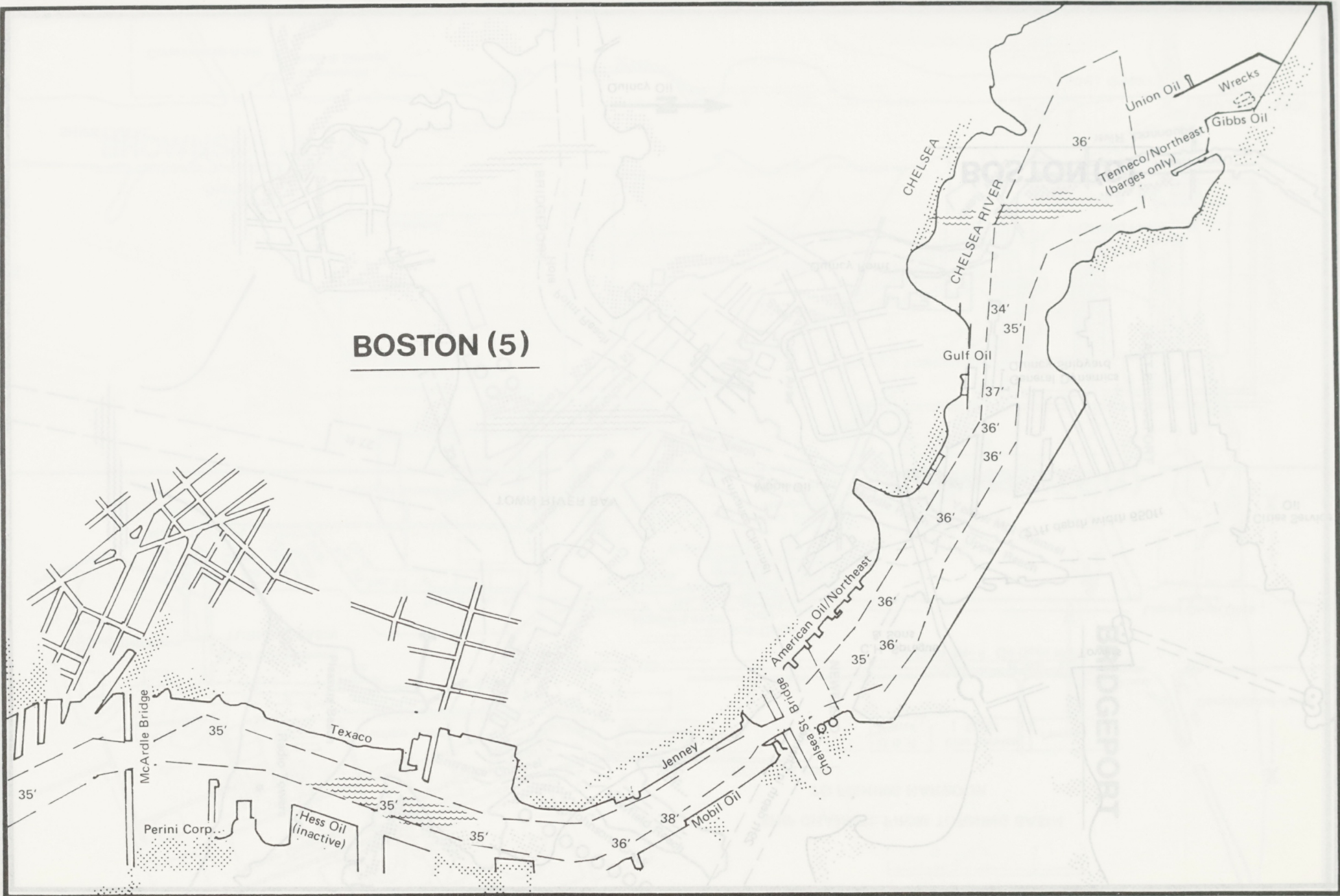




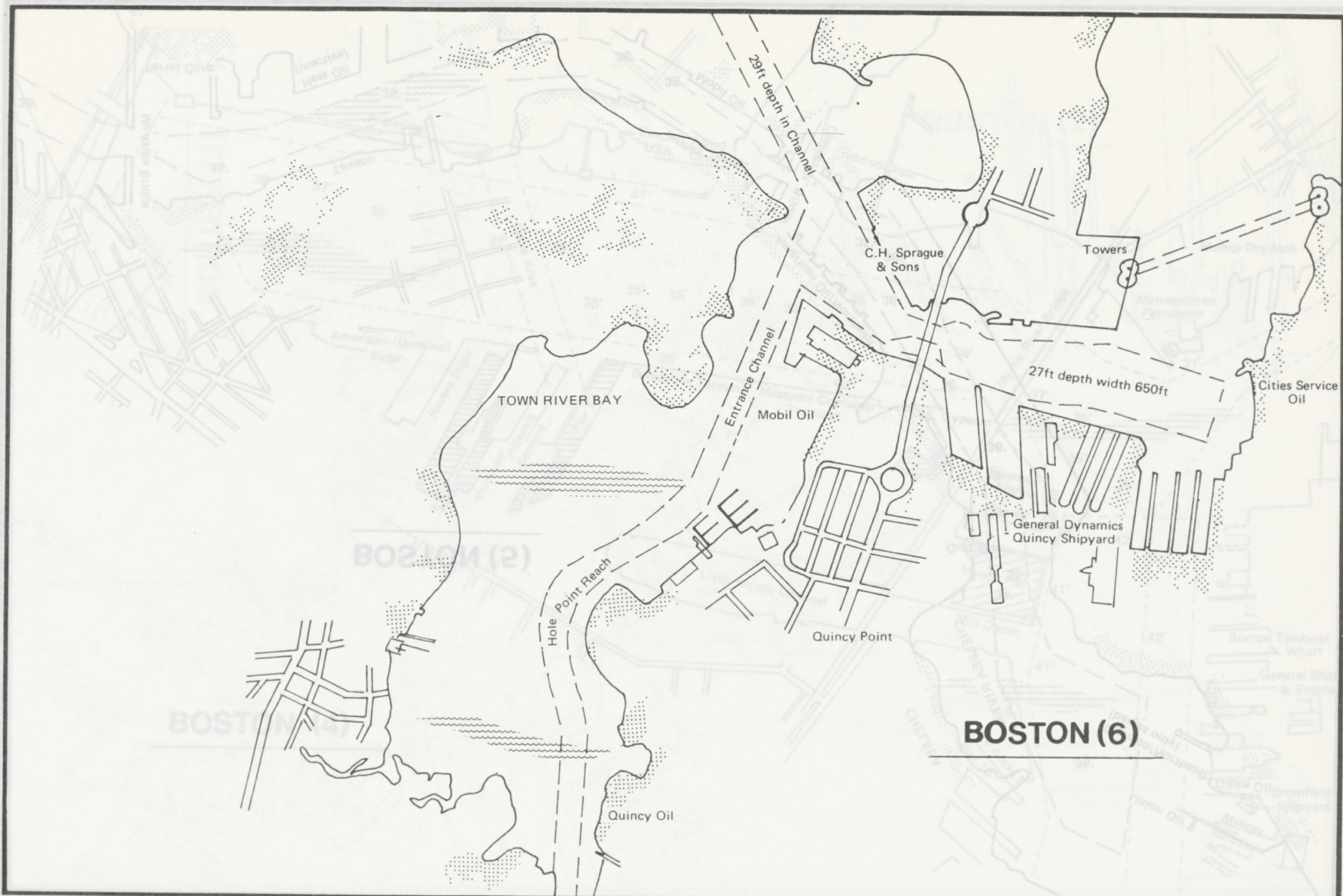




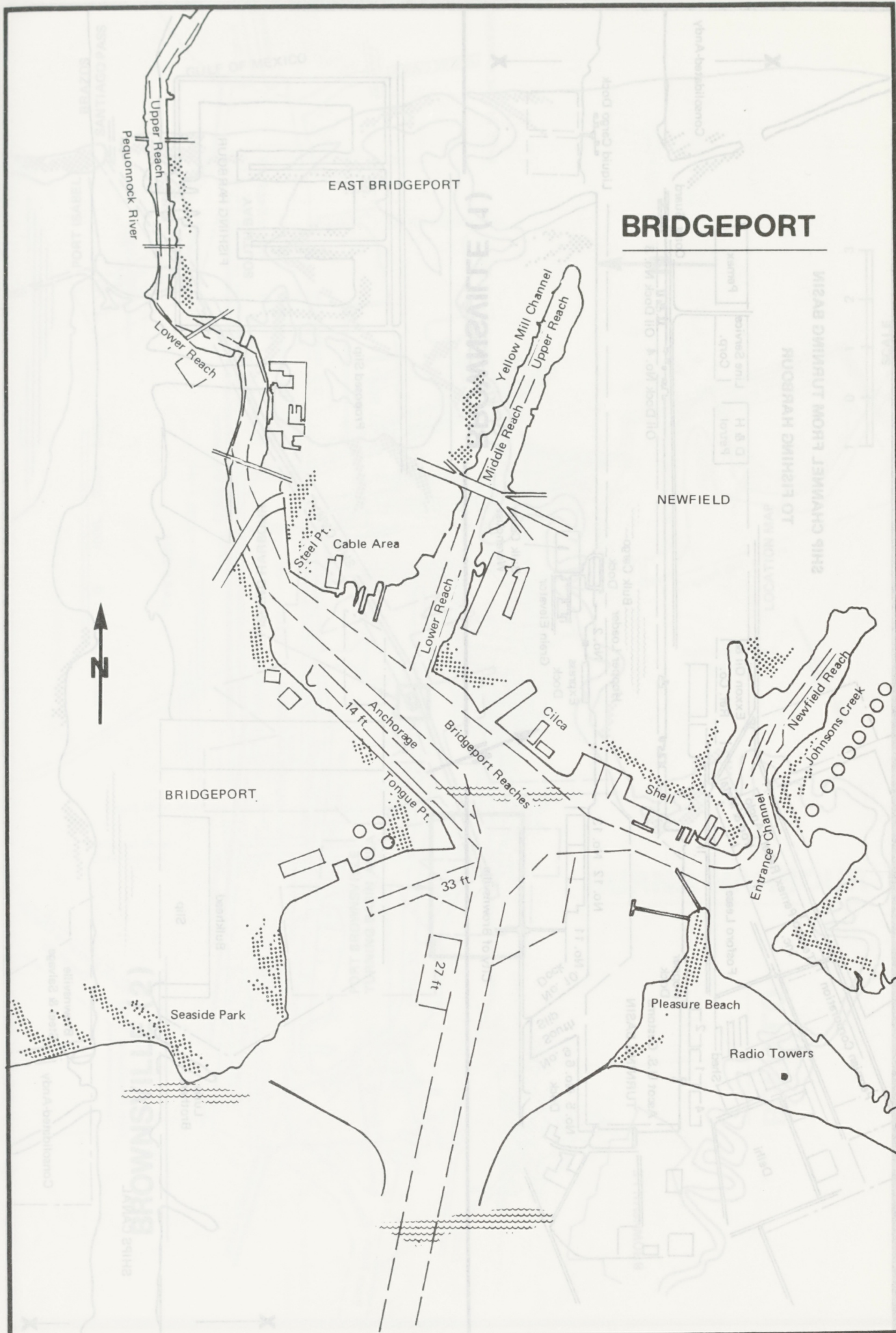
## BOSTON (5)



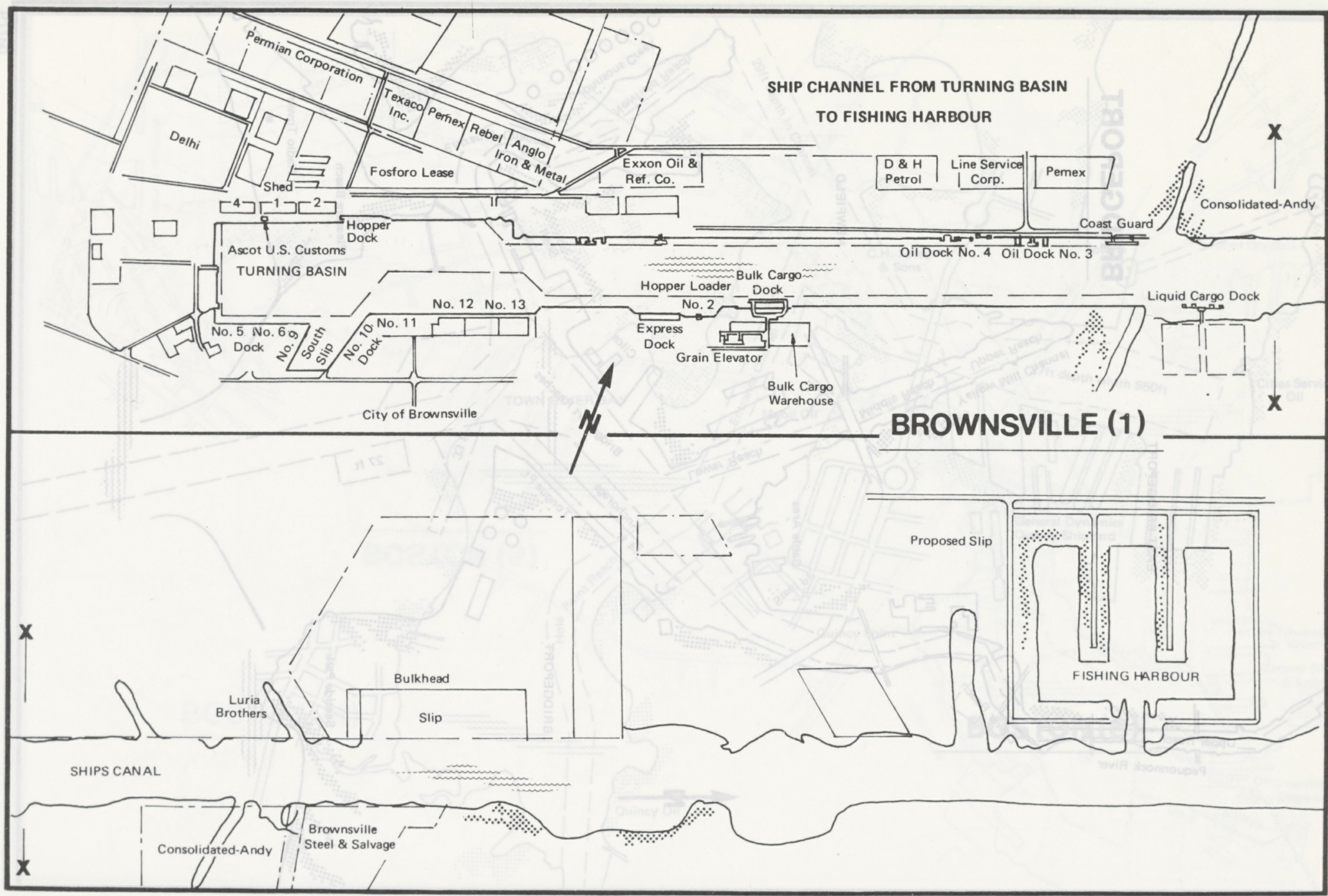






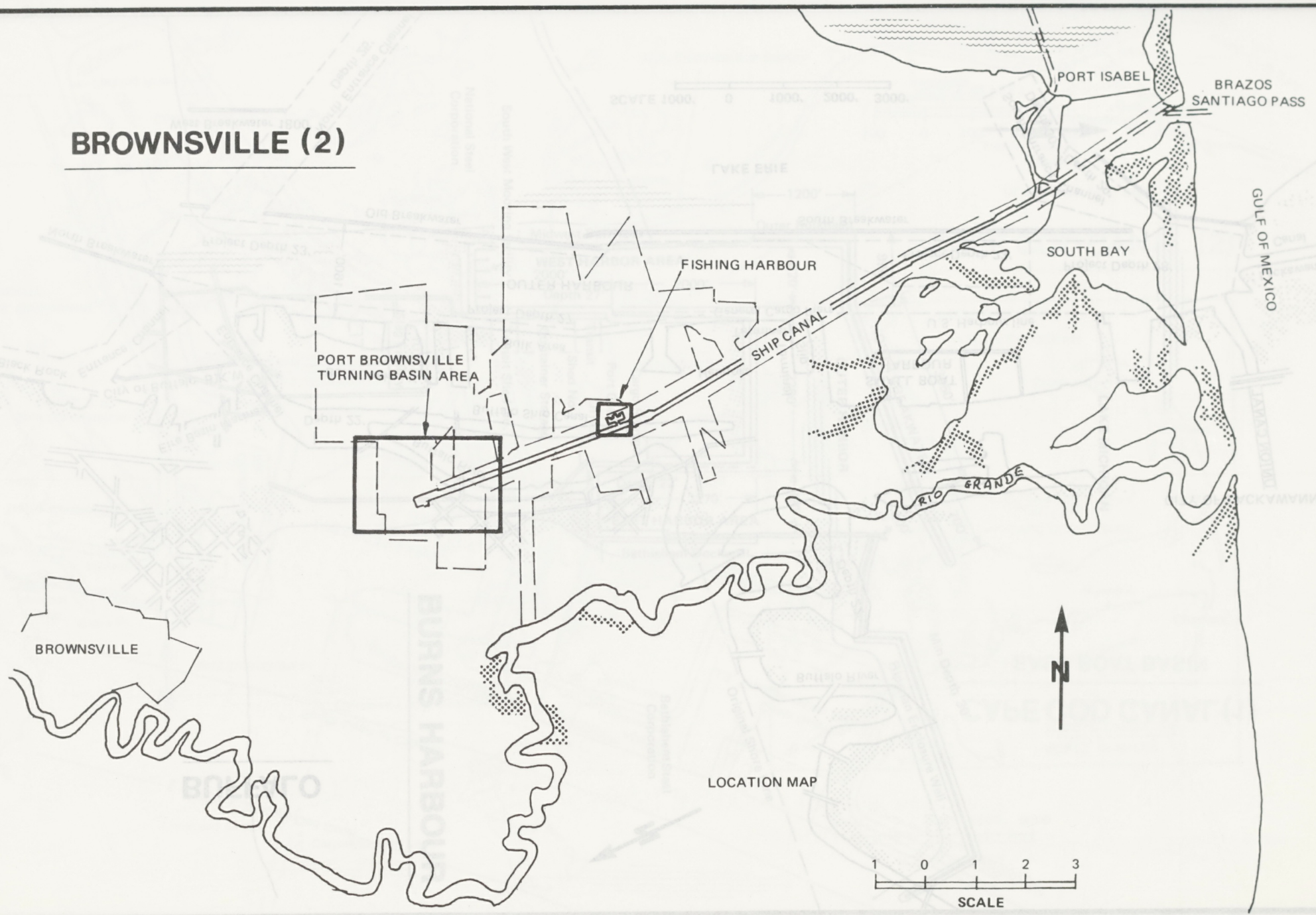






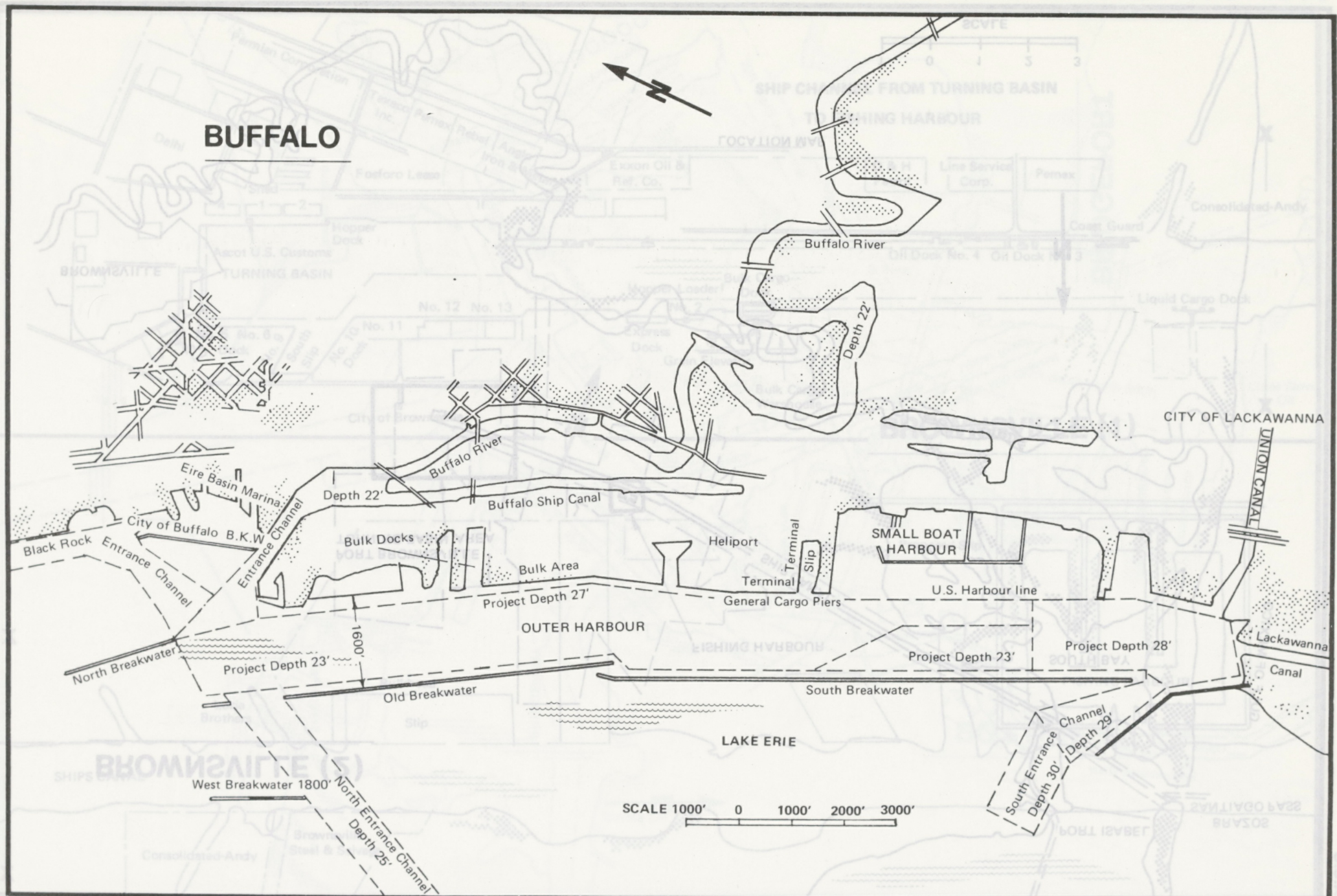


## BROWNSVILLE (2)



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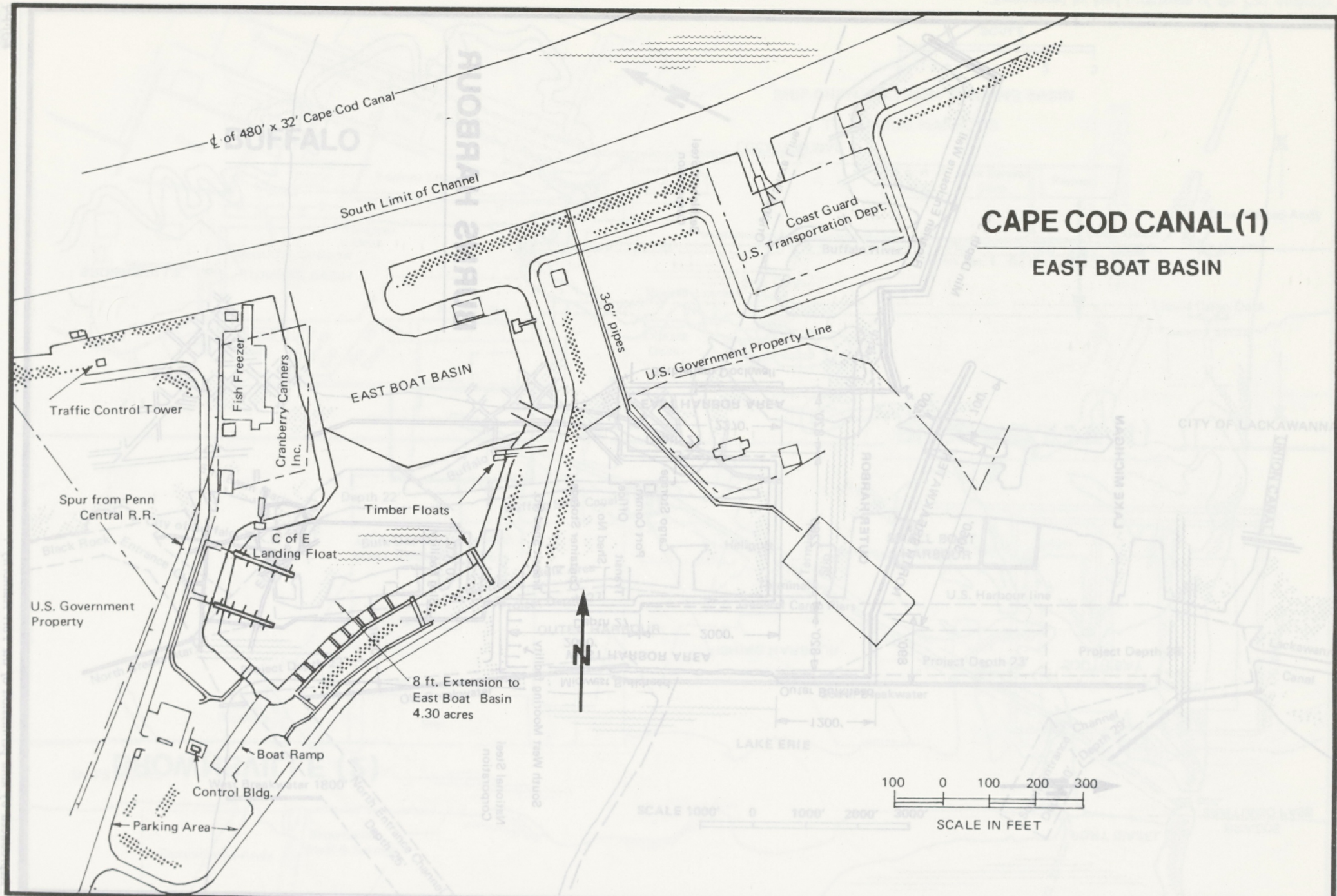








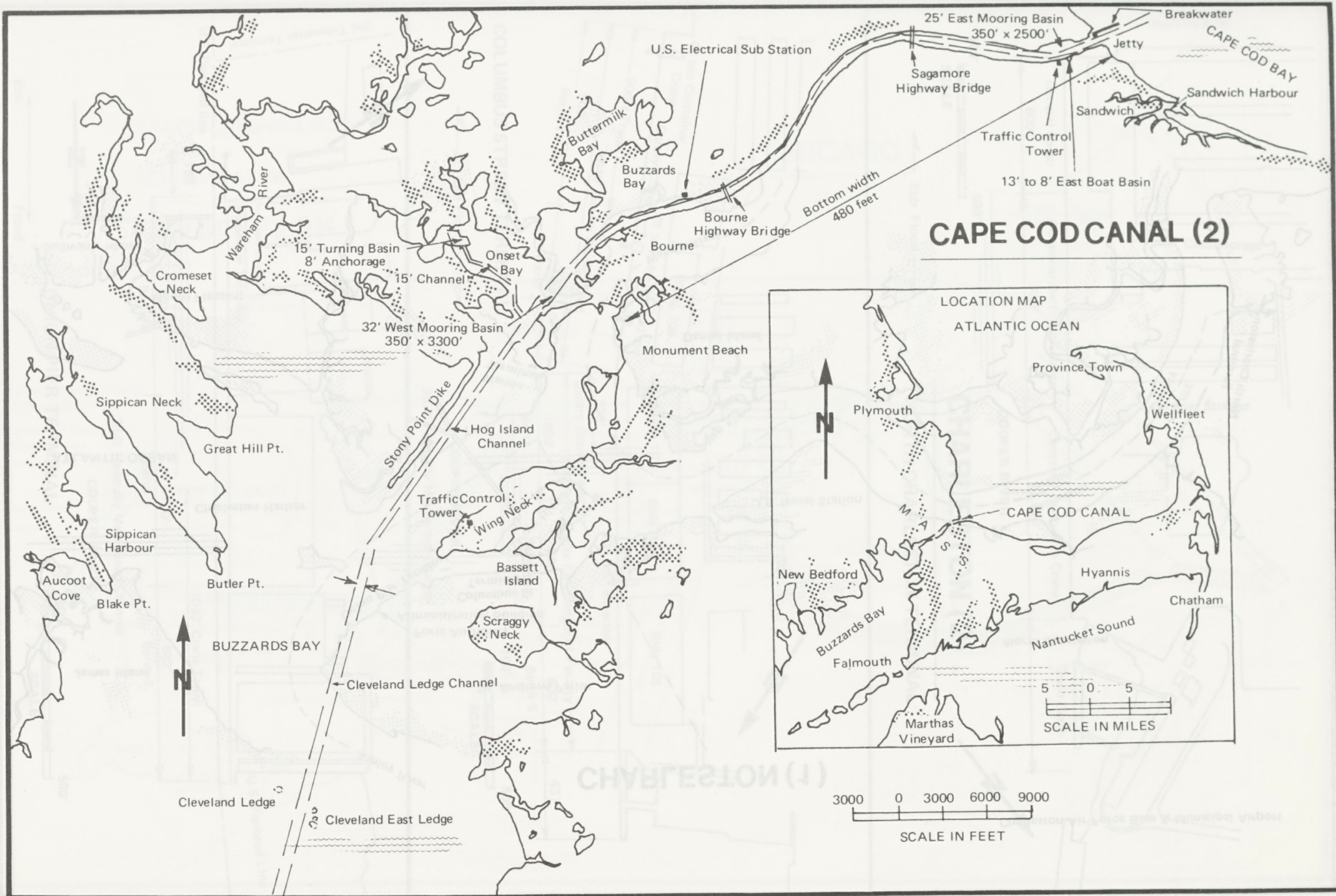




# CAPE COD CANAL (1)

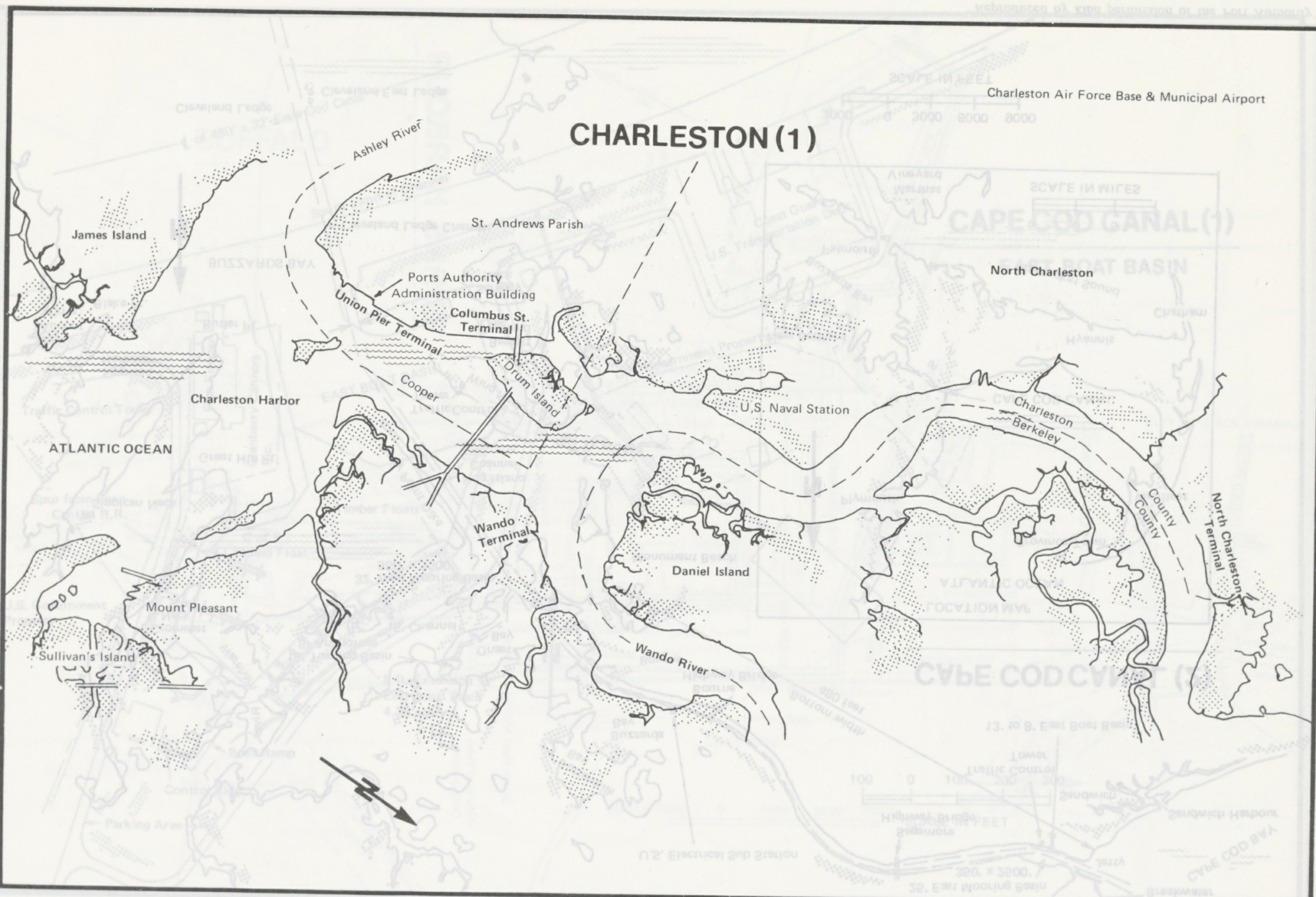
## EAST BOAT BASIN



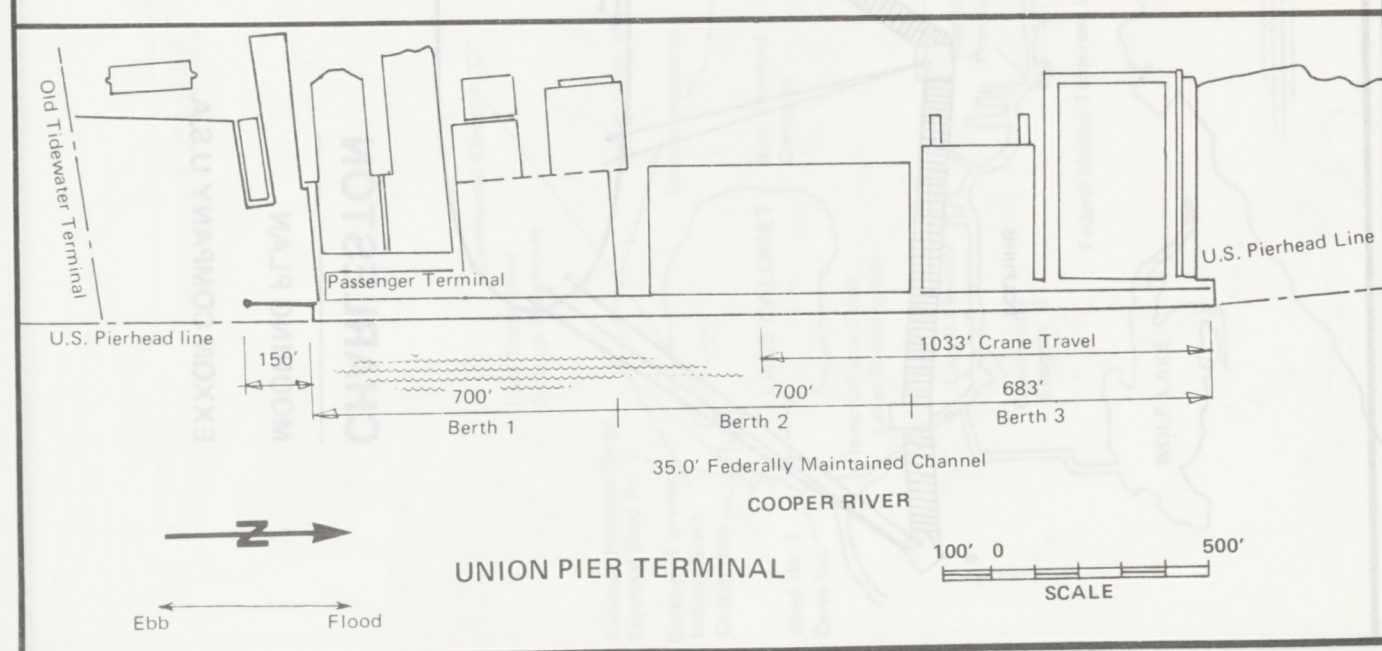
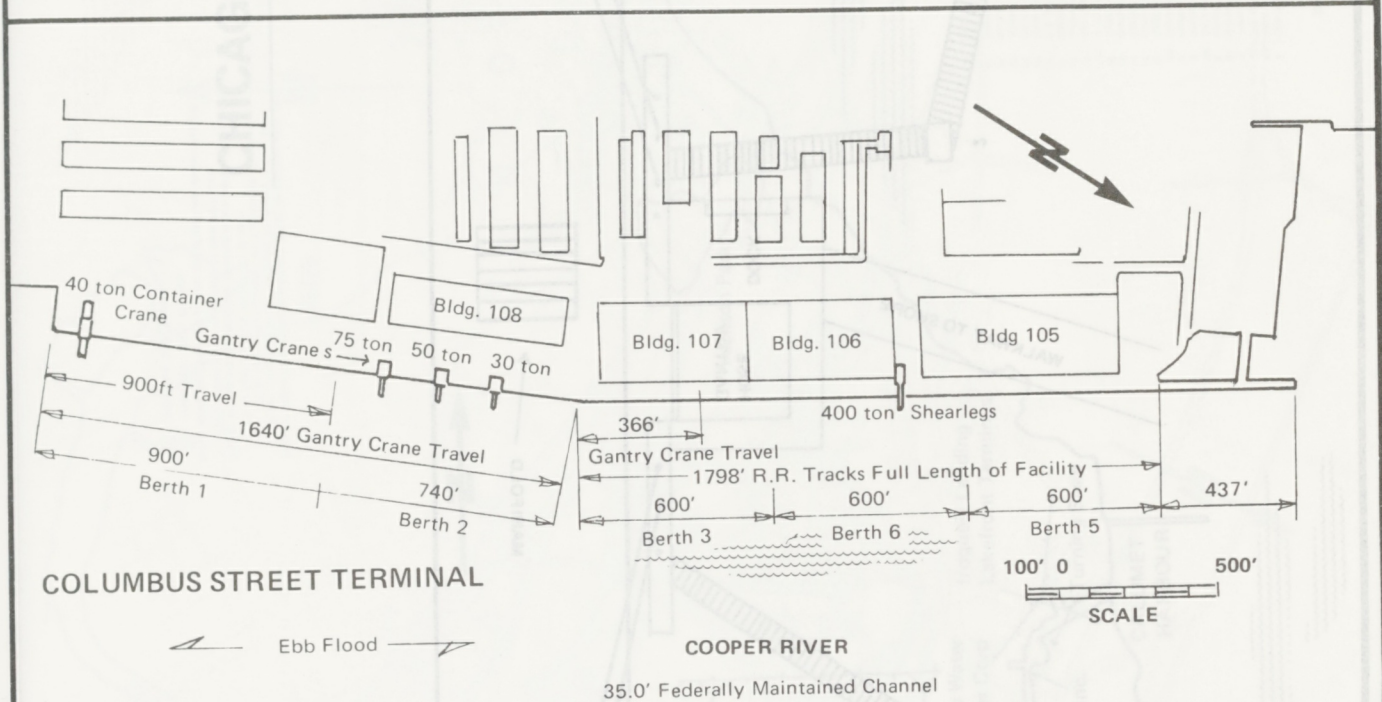
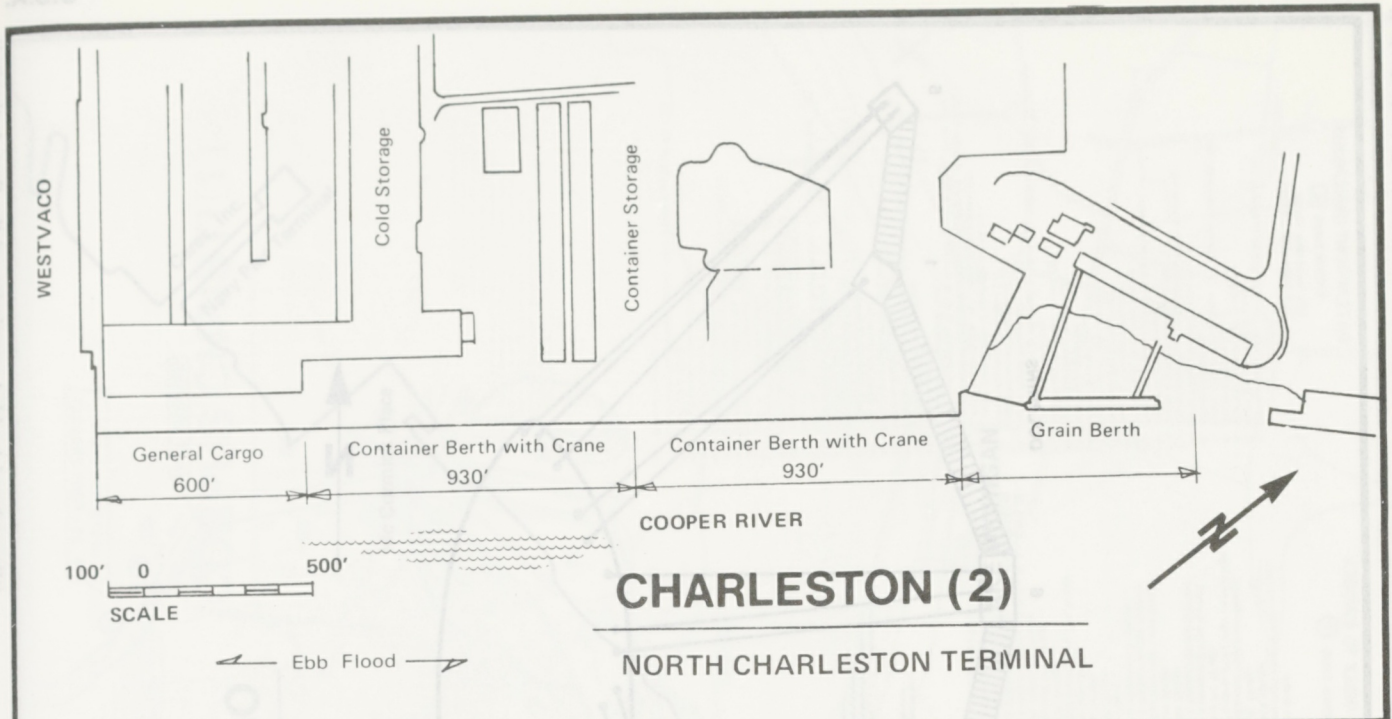


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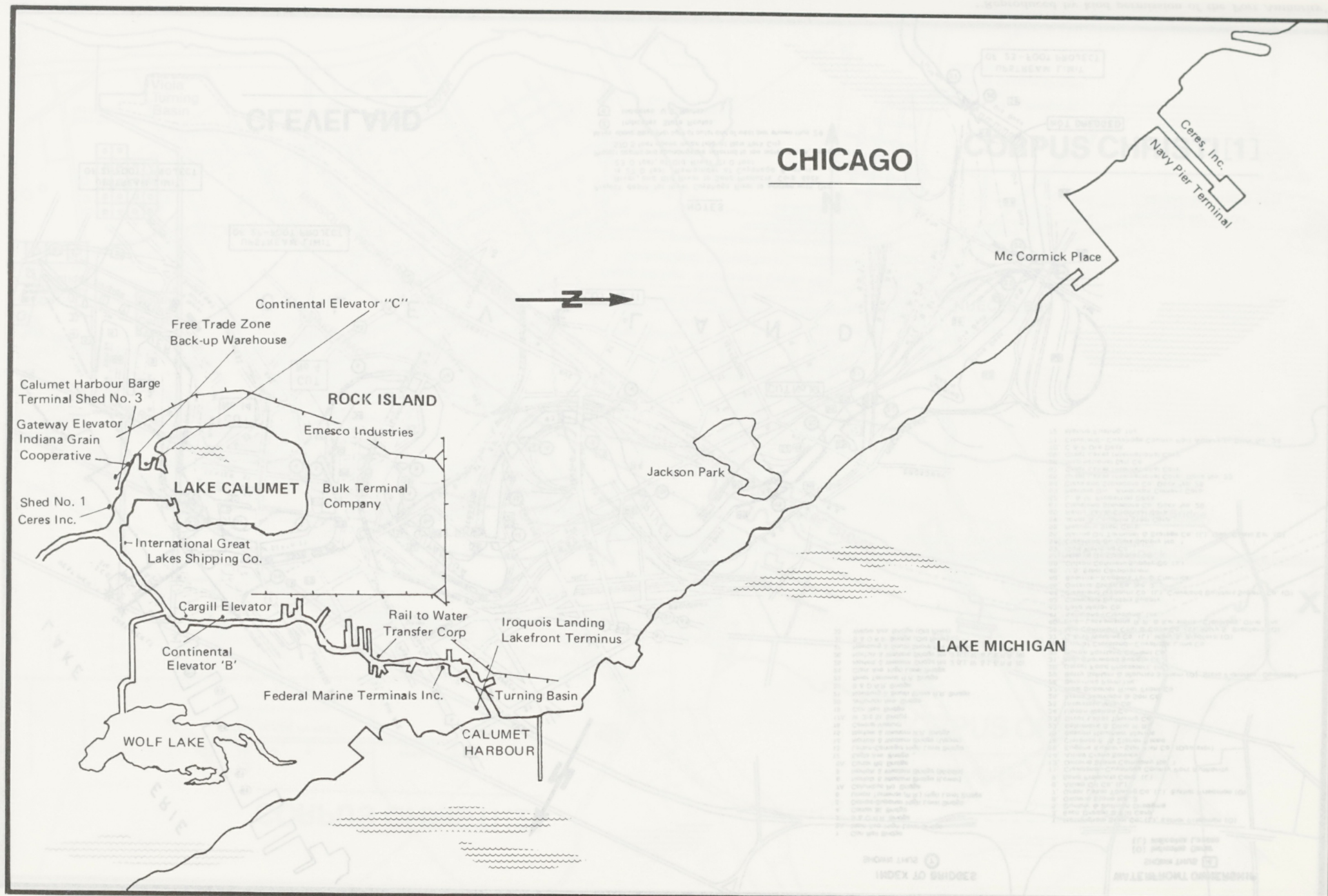




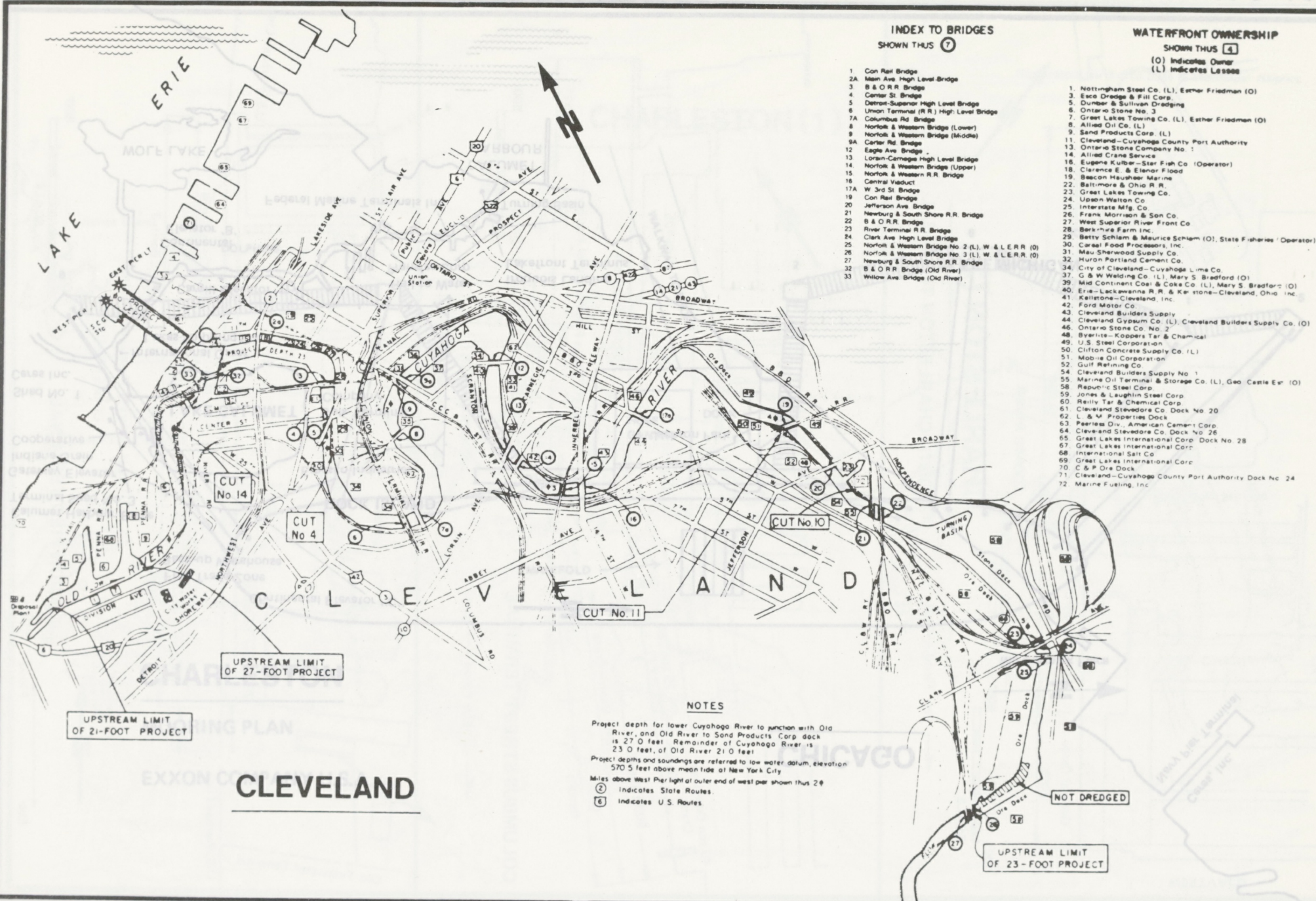




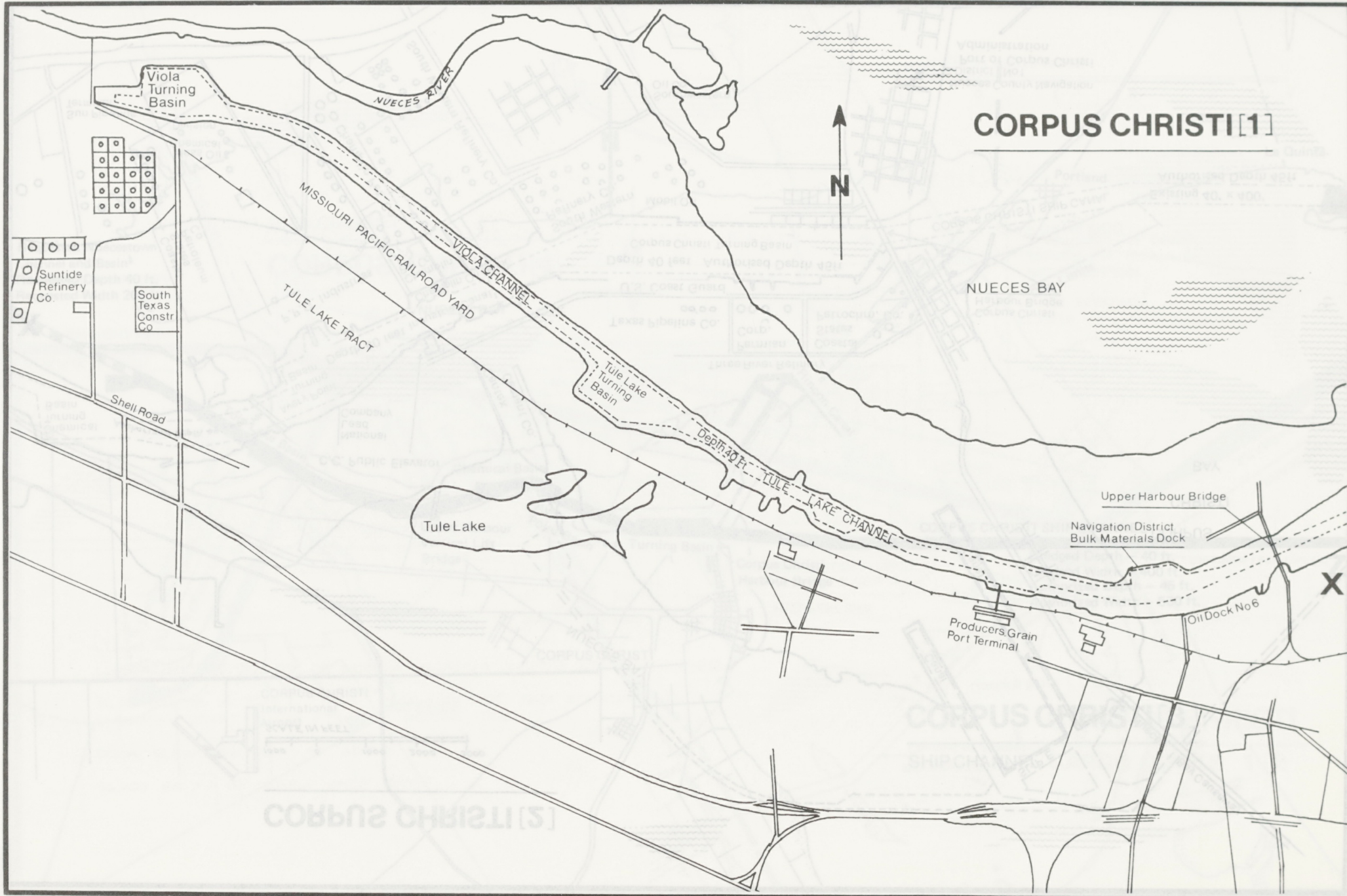












# CORPUS CHRISTI [1]



NUECES BAY

Upper Harbour Bridge

Navigation District  
Bulk Materials Dock

Producers Grain  
Port Terminal

Oil Dock No. 6

Tule Lake

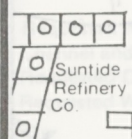
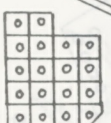
MISSOURI PACIFIC RAILROAD YARD

VIOLA CHANNEL

Tule Lake  
Turning  
Basin

Depth 20 Ft. TULE LAKE CHANNEL

Viola  
Turning  
Basin



Suntide  
Refinery  
Co.

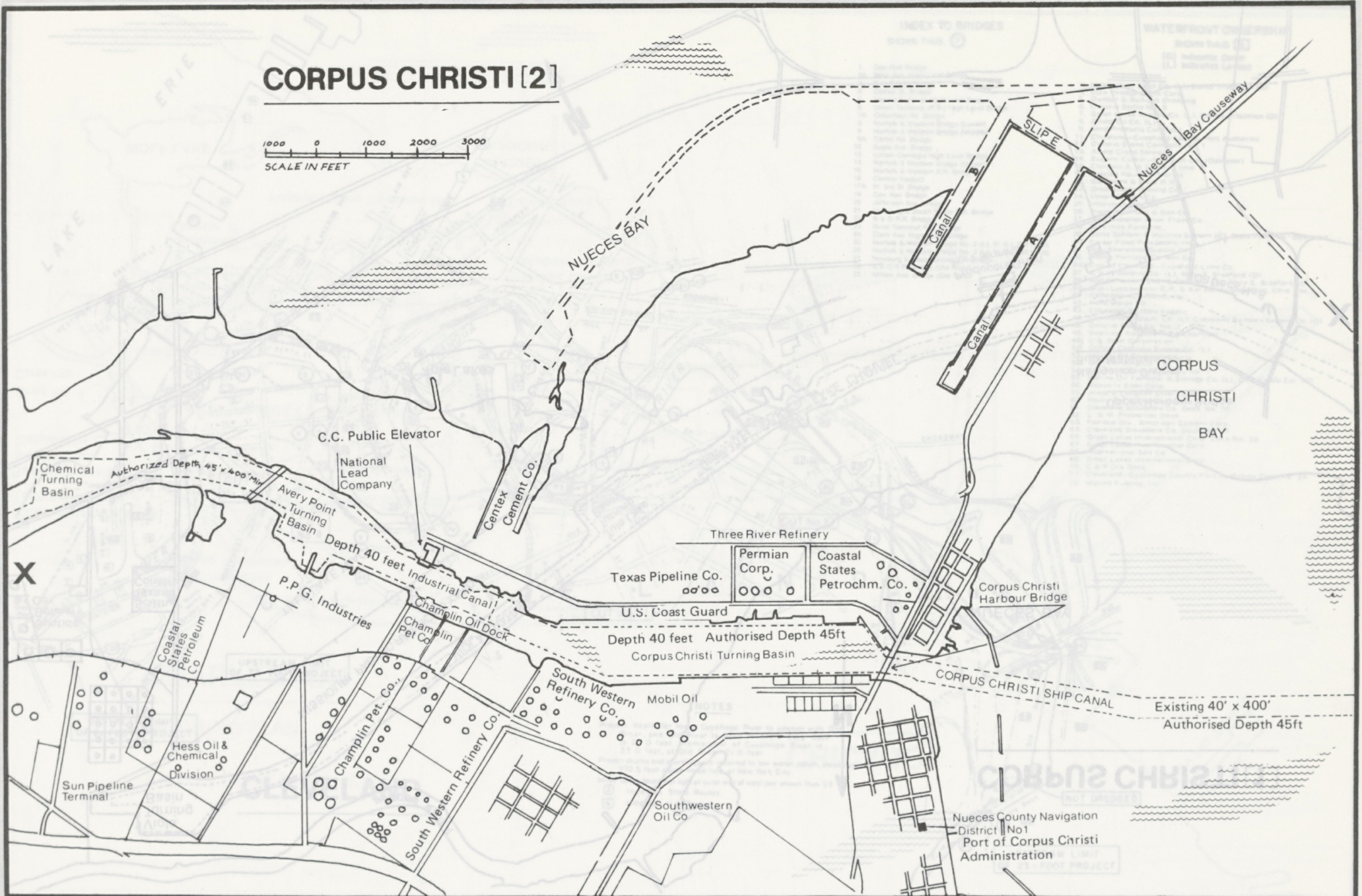
South  
Texas  
Constr  
Co.

Shell Road



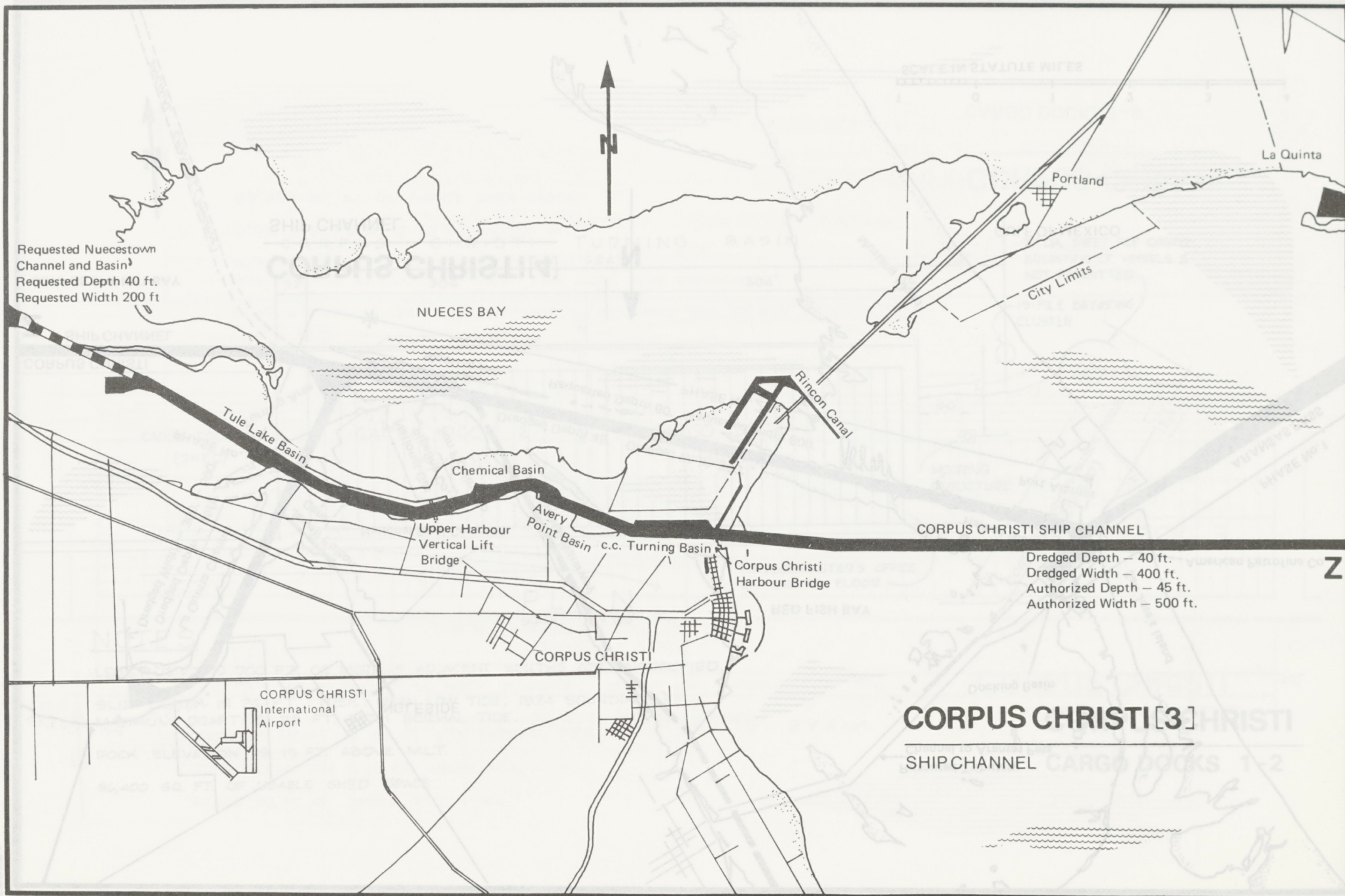
# CORPUS CHRISTI [2]

1000 0 1000 2000 3000  
SCALE IN FEET



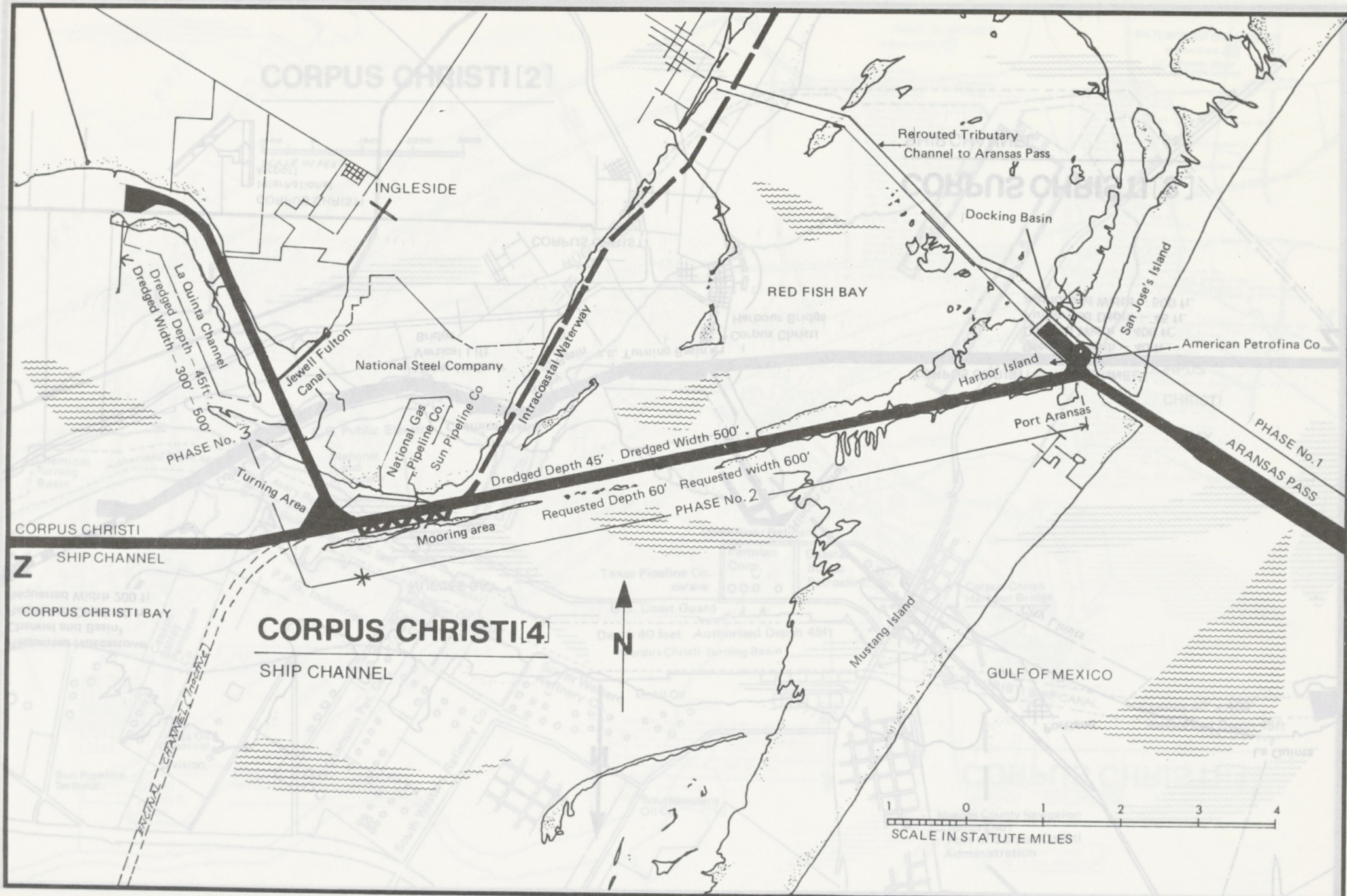
"Reproduced by kind permission of the Port Authority".



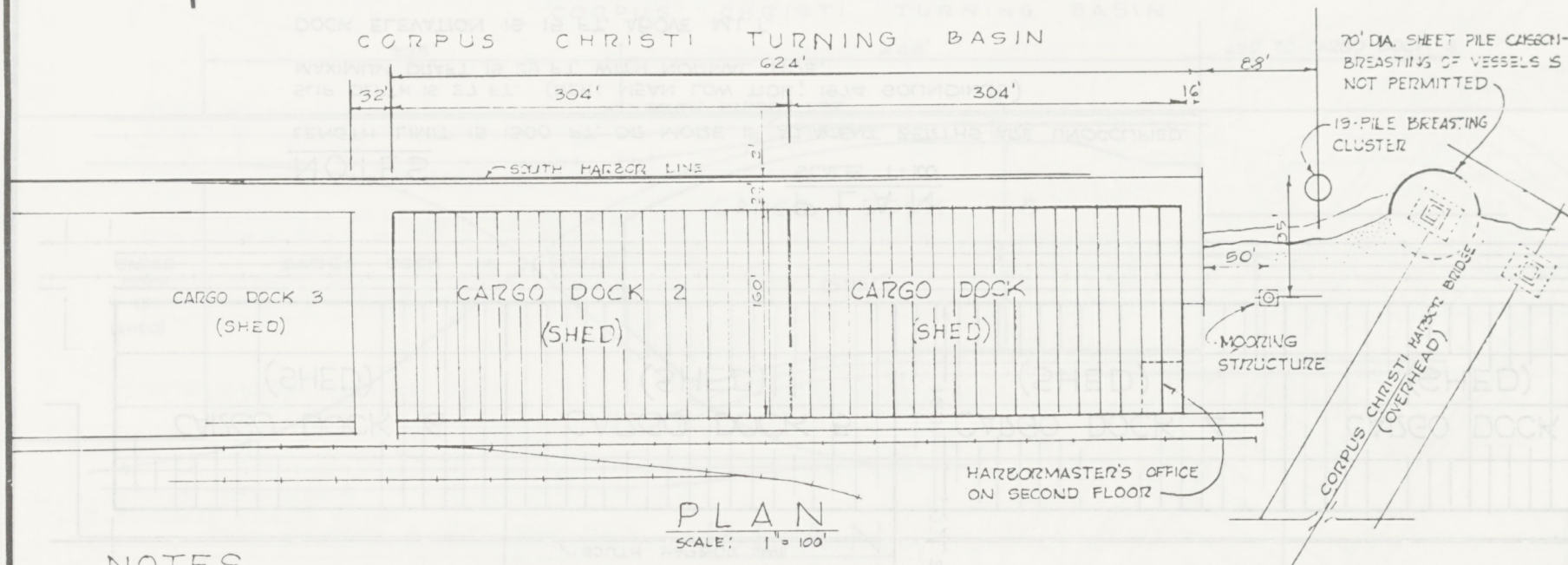
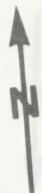


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PLAN  
SCALE: 1" = 100'

## NOTES

LENGTH LIMIT IS 700 FT. OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED.

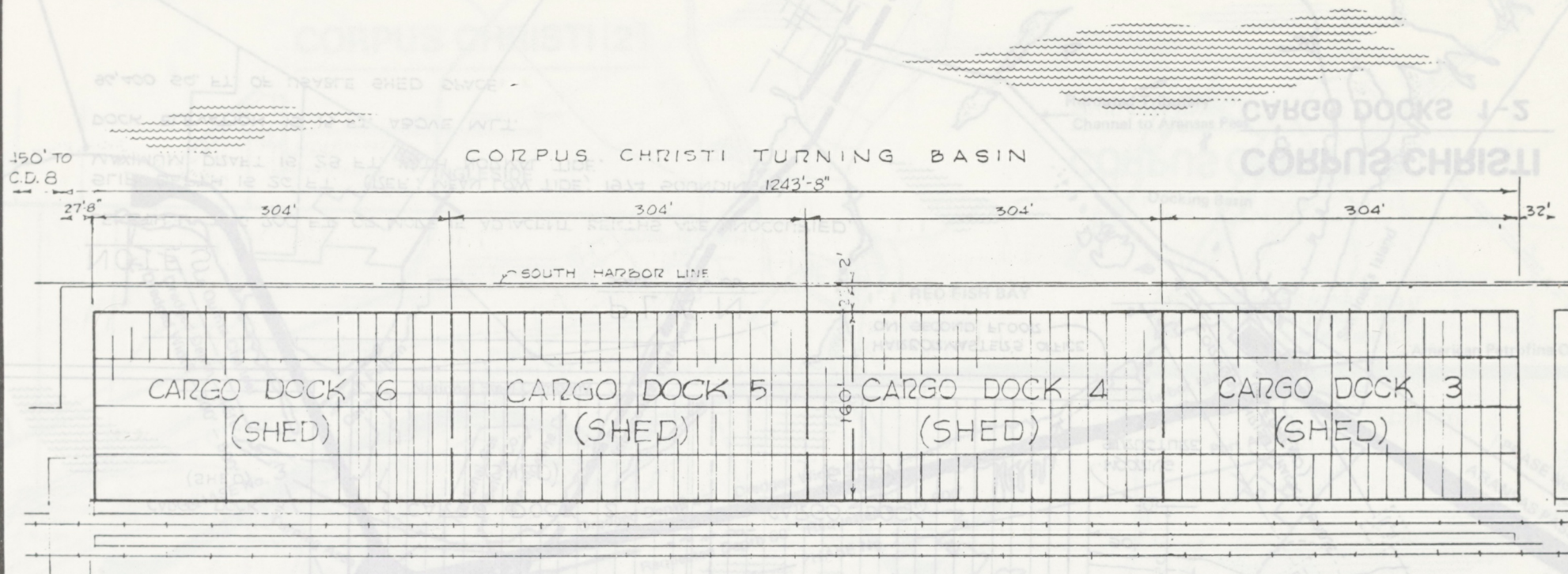
SLIP DEPTH IS 26 FT. (REF.: MEAN LOW TIDE; 1974 SOUNDINGS)  
MAXIMUM DRAFT IS 29 FT. WITH NORMAL TIDE.

DOCK ELEVATION IS 15 FT. ABOVE M.L.T.

96,400 SQ. FT. OF USABLE SHED SPACE.

**CORPUS CHRISTI**  
**CARGO DOCKS 1-2**





PLAN  
SCALE 1"=100'

### NOTES

LENGTH LIMIT IS 1300 FT. OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED.

SLIP DEPTH IS 27 FT. (REF.: MEAN LOW TIDE; 1974 SOUNDINGS)  
MAXIMUM DRAFT IS 29 FT. WITH NORMAL TIDE.

DOCK ELEVATION IS 15 FT. ABOVE M.L.T.

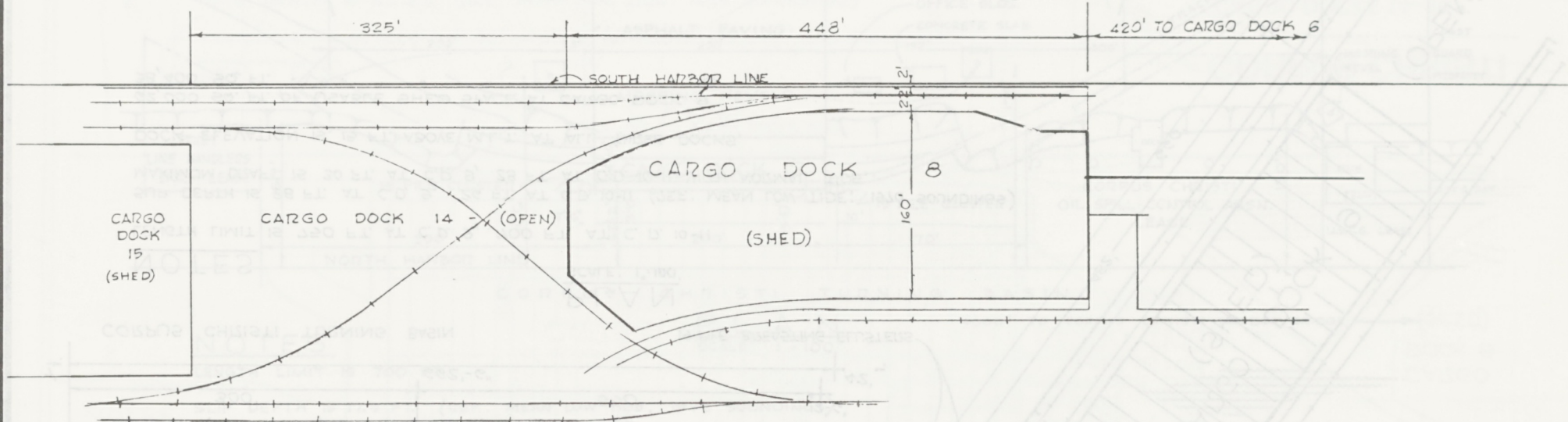
193,920 SQ. FT. OF USABLE SHED SPACE.

## CORPUS CHRISTI

CARGO DOCKS 3-6



# CORPUS CHRISTI TURNING BASIN



## PLAN

SCALE: 1" = 100'

## NOTES

LENGTH LIMIT IS 600 FT., OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED.

SLIP DEPTH IS 26 FT. (REF.: MEAN LOW TIDE; 1974 SOUNDINGS)

MAXIMUM DRAFT IS 28 FT. WITH NORMAL TIDE.

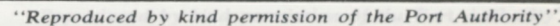
DOCK ELEVATION IS 15 FT. ABOVE M.L.T.

66,600 SQ. FT. OF USABLE SHED SPACE.

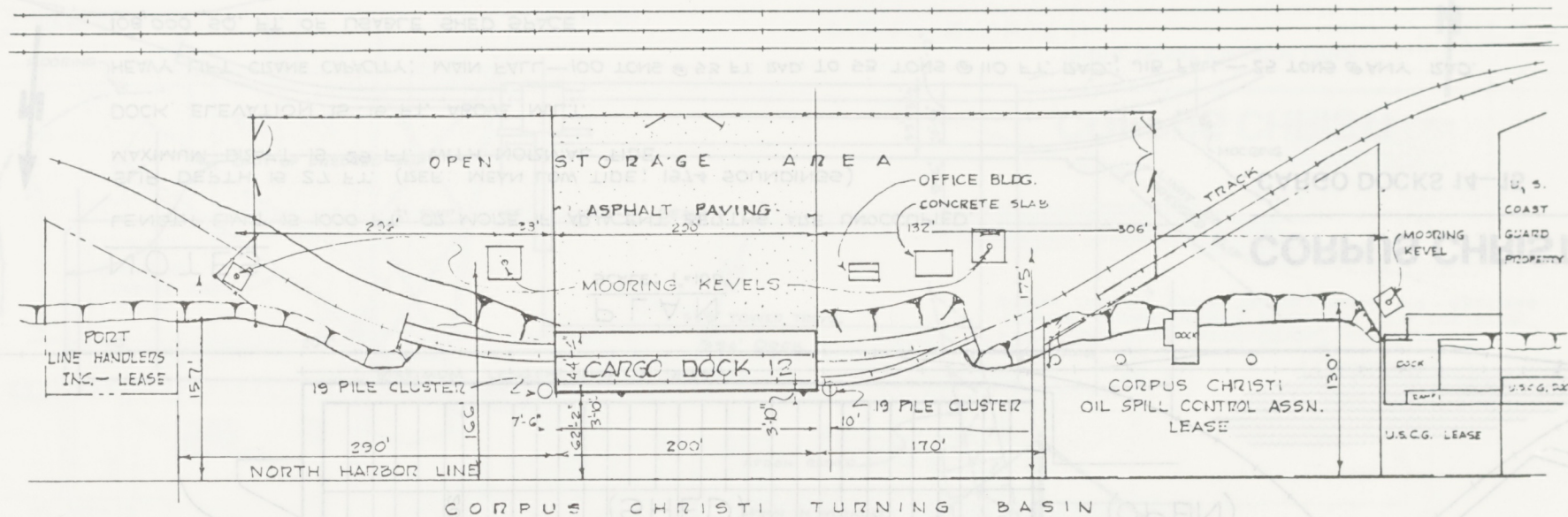
## CORPUS CHRISTI

### CARGO DOCK 8









## NOTES

LENGTH LIMIT IS 700 FT.

SLIP DEPTH IS 17.5 FT. (REF: MEAN LOW TIDE; 1972 SOUNDINGS)  
 MAXIMUM DRAFT IS 19.5 FT. WITH NORMAL TIDE.

DOCK ELEVATION IS 12 FT. ABOVE M.L.T.

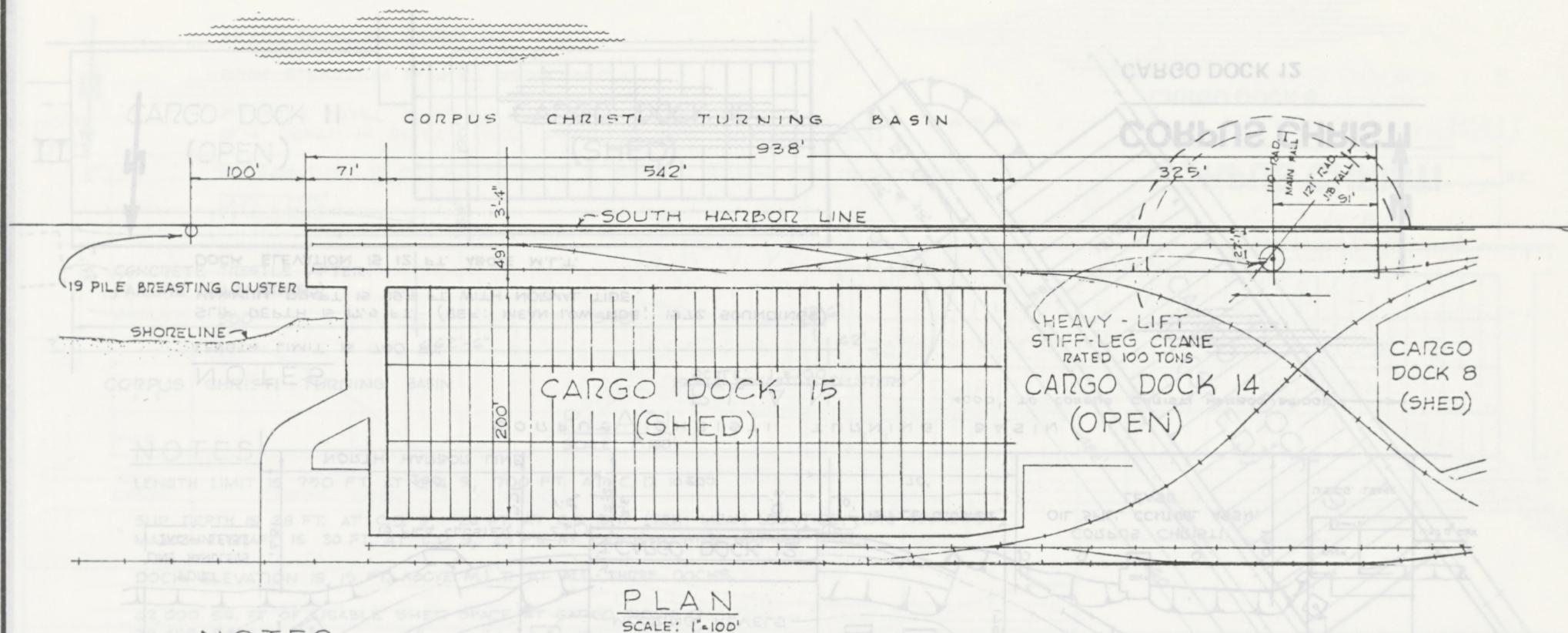
PLAN  
 SCALE: 1"=100'

4000' TO CORPUS CHRISTI HARBOR BRIDGE

## CORPUS CHRISTI

CARGO DOCK 12





## NOTES

LENGTH LIMIT IS 1000 FT., OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED.

SLIP DEPTH IS 27 FT. (REF: MEAN LOW TIDE; 1974 SOUNDINGS)  
 MAXIMUM DRAFT IS 29 FT. WITH NORMAL TIDE

DOCK ELEVATION IS 15 FT. ABOVE M.L.T.

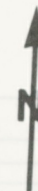
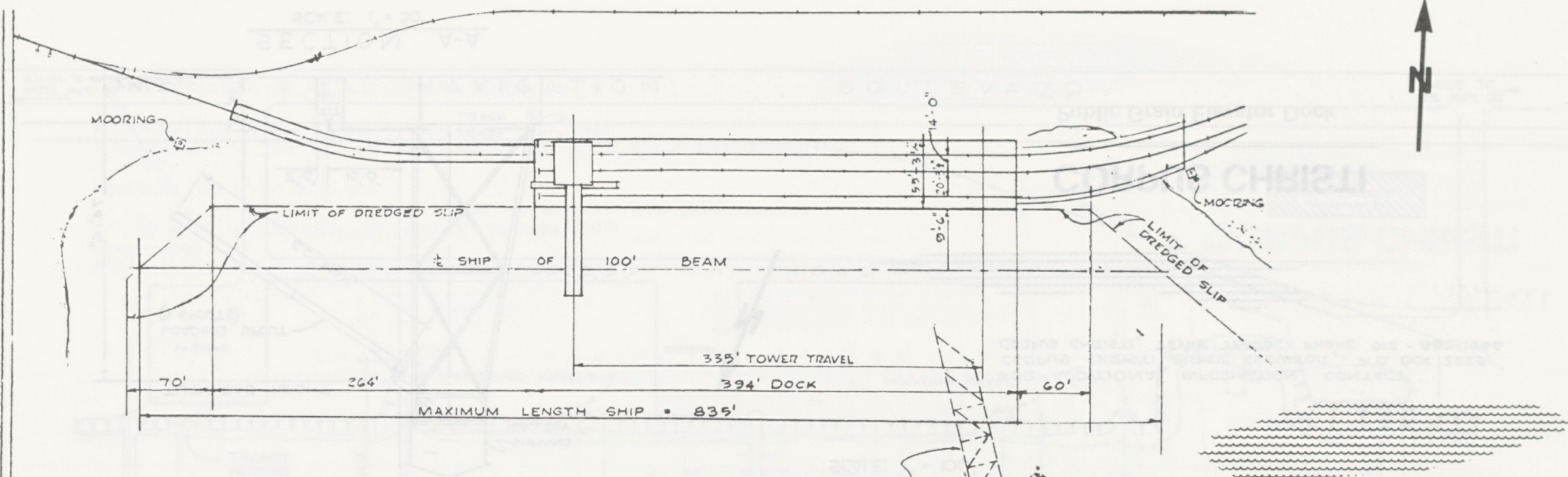
HEAVY LIFT CRANE CAPACITY: MAIN FALL—100 TONS @ 53 FT. RAD. TO 53 TONS @ 110 FT. RAD.; JIB FALL—25 TONS @ ANY RAD.

108,000 SQ. FT. OF USABLE SHED SPACE.

## CORPUS CHRISTI

### CARGO DOCKS 14-15





## NOTES

PLAN  
SCALE: 1" = 100'

MOORING BOLLARDS ARE MOUNTED ON THE DOCK, 2 FT. BEHIND THE FACE OF THE FENDER TIMBER, 32 FT. AND 172 FT. EACH WAY FROM THE CENTER-LINE OF THE DOCK.

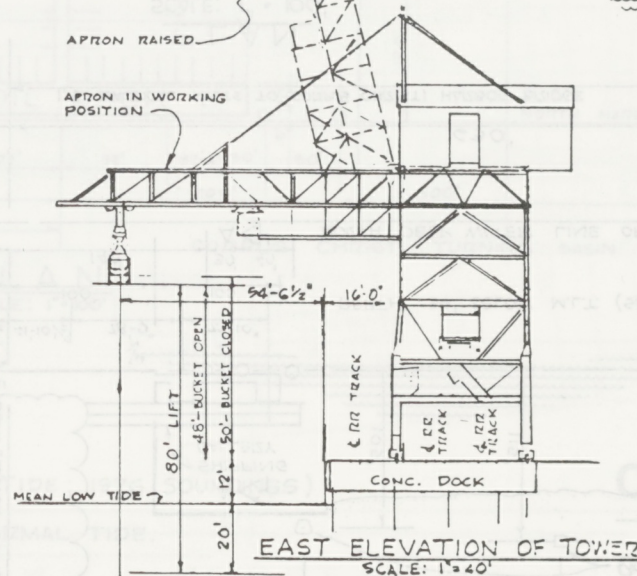
DIRECTION OF SHIP'S HEAD DEPENDS ON HATCHES TO BE WORKED ON A LONG SHIP.

MOORING LINES USED ARE DETERMINED BY THE SHIP'S POSITION.

CARGO HANDLING SHORE EQUIPMENT CONSISTS OF A TRAVELING UNLOADING TOWER WITH A 10 TON CAPACITY BUCKET FOR WHICH OUTER LIMITS OF TRAVEL ARE SHOWN.

THE AREA WITHIN THE LIMITS OF DREDGED SLIP HAS A MINIMUM DEPTH OF 32 FT. BELOW MEAN LOW TIDE ACCORDING TO SOUNDINGS MADE IN 1974.

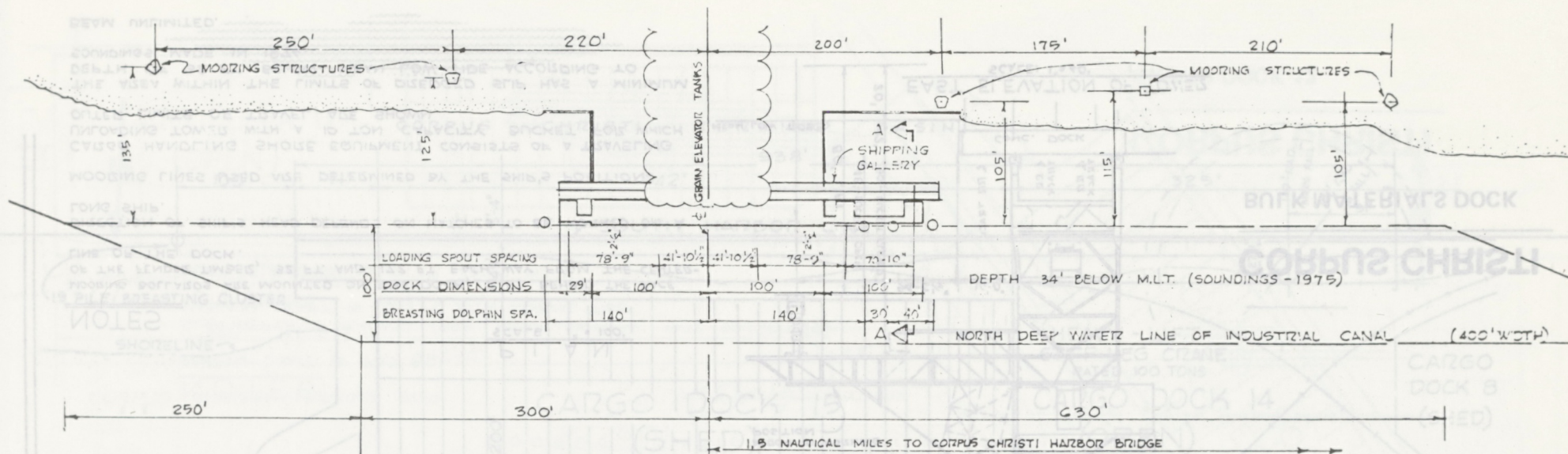
BEAM UNLIMITED.



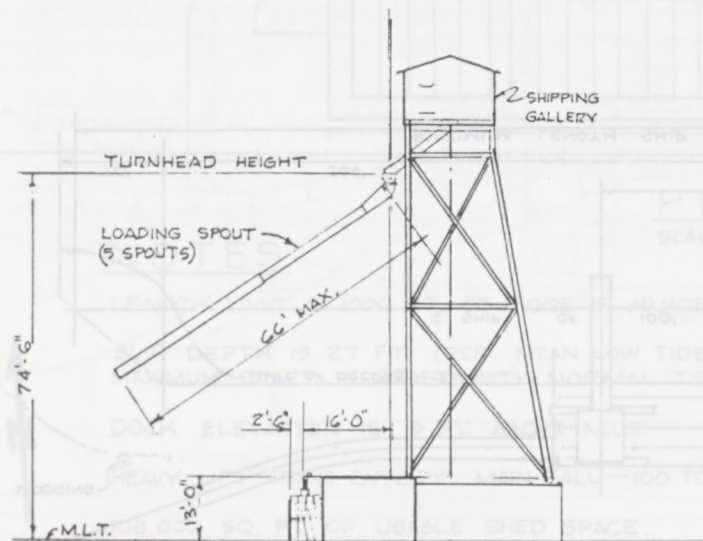
CORPUS CHRISTI

BULK MATERIALS DOCK





PLAN  
SCALE: 1" = 100'



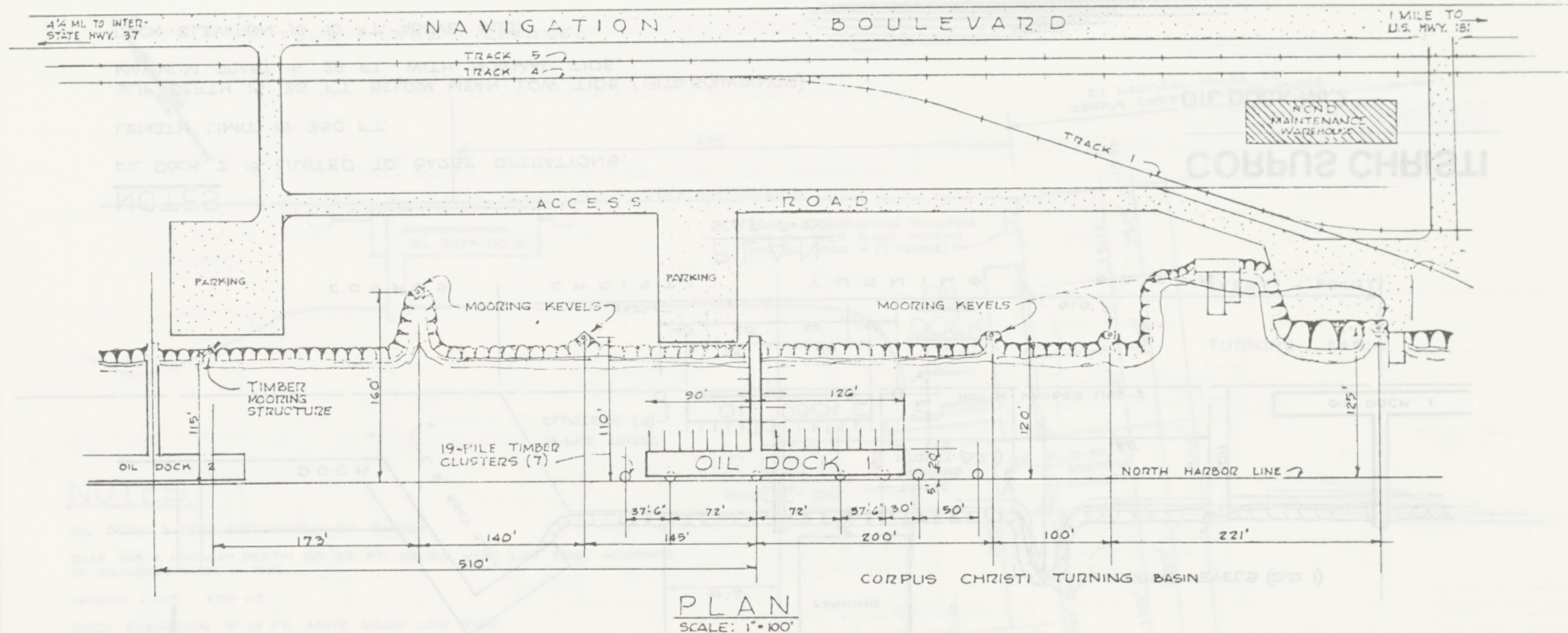
SECTION A-A  
SCALE: 1" = 30'

FOR ADDITIONAL INFORMATION, CONTACT  
CORPUS CHRISTI PUBLIC ELEVATOR, P.O. BOX 2229,  
CORPUS CHRISTI, TEXAS 78403; PHONE 512-882-1956.

## CORPUS CHRISTI

Public Grain Elevator Dock





## NOTES

LENGTH LIMIT IS 800 FT.

SLIP DEPTH IS 31 FT. (REF.: MEAN LOW TIDE; 1976 SOUNDINGS)

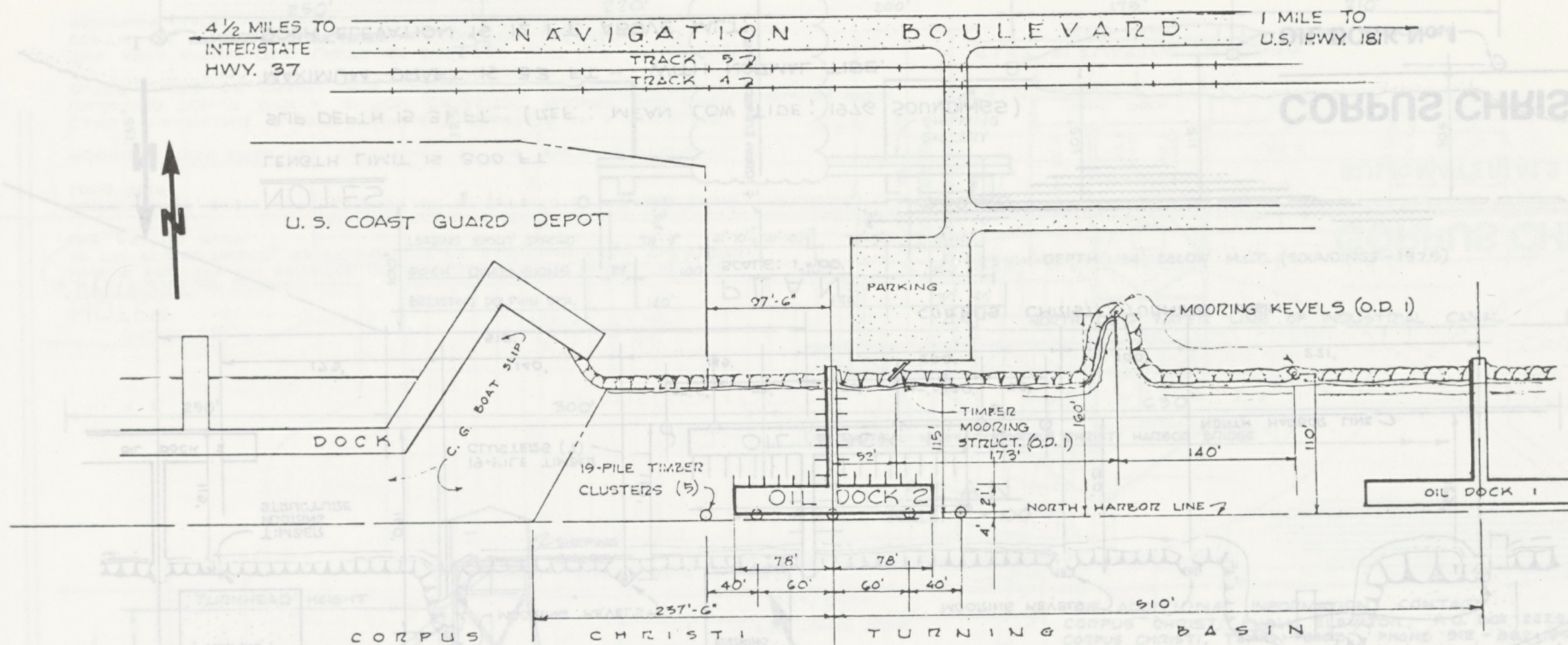
MAXIMUM DRAFT IS 33 FT. -- WITH NORMAL TIDE.

DOCK ELEVATION IS 12 FT. ABOVE M.L.T.

## CORPUS CHRISTI

OIL DOCK No.1





PLAN  
SCALE: 1" = 100'

**NOTES**

- OIL DOCK 2 IS LIMITED TO BARGE OPERATIONS.
- LENGTH LIMIT IS 350 FT.
- SLIP DEPTH IS 26 FT. BELOW MEAN LOW TIDE (1976 SOUNDINGS).
- MAXIMUM DRAFT IS 28 FT. WITH NORMAL TIDE.
- DOCK ELEVATION IS 10 FT. ABOVE M.L.T.

**CORPUS CHRISTI**

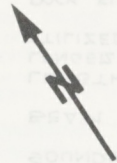
OIL DOCK No.2

SECTION A-A  
SCALE: 1" = 50'





TULE LAKE CHANNEL



475'

DEEP WATER LINE

OIL DOCK NO. 4

MOORING - BREASTING STRUCTURE  
FOR OIL DOCK 3, AND MOORING  
FOR OIL DOCK 4 (2 KEVELS)

OIL  
DOCK  
3

AVERY POINT

TURNING BASIN

2.1 NAUTICAL MILES TO  
CORPUS CHRISTI HARBOR BRIDGE

19.75'

55.25'

35.25'

60'

60'

146'

60'

440'

239'

175'

159'

29'

15-PILE  
BREASTING  
CLUSTERS

NCND. WEST BULKHEAD LINE

80'

40'

NCND. SOUTH BULKHEAD LINE

TOWBOAT  
BERTH

FIREBOAT  
HOUSE  
48' x 60'

## NOTES

OIL DOCK 3 USED EXCLUSIVELY BY BARGES.

SLIP HAS A MINIMUM DEPTH OF 25 FT. BELOW MEAN LOW TIDE, ACCORDING  
TO SOUNDINGS MADE IN 1973.

LENGTH LIMIT: 430 FT.

DOCK ELEVATION IS 10 FT. ABOVE MEAN LOW TIDE.

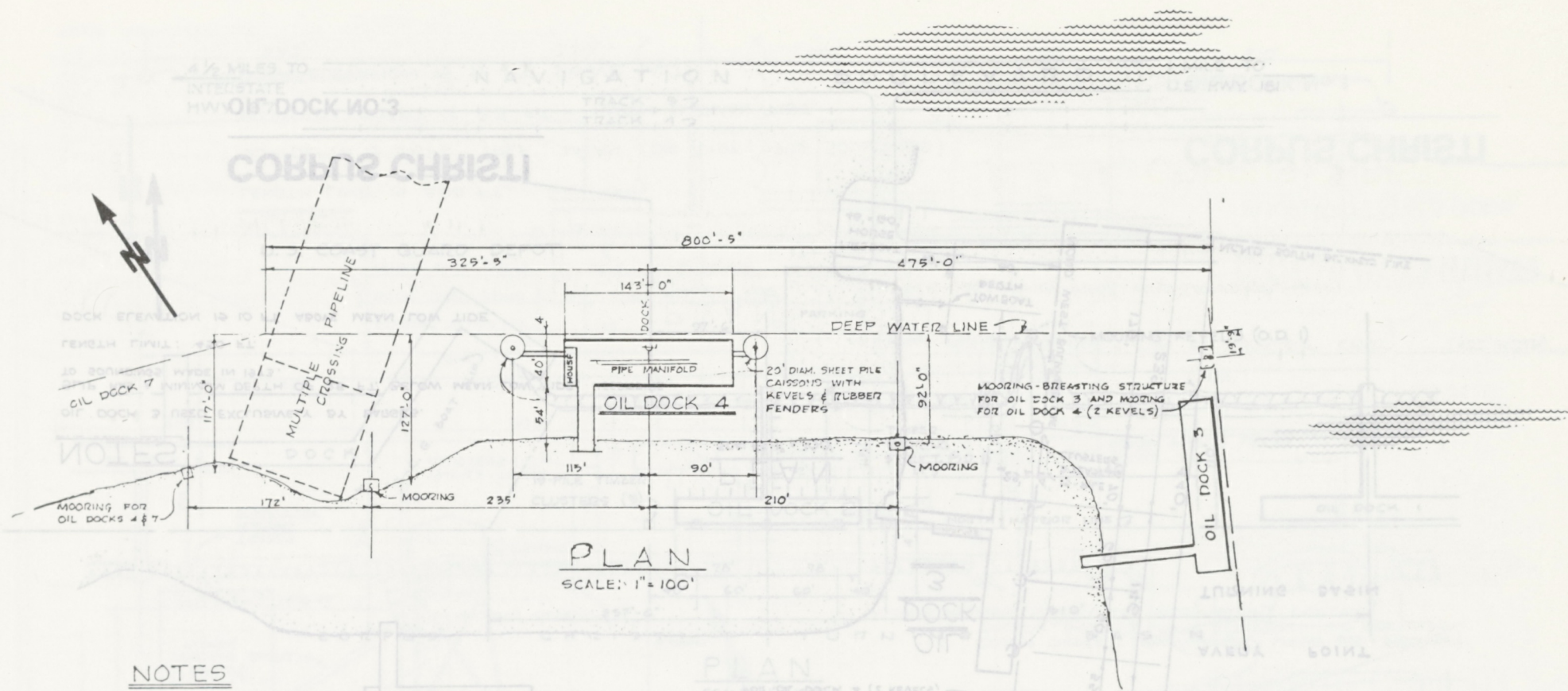
## PLAN

SCALE: 1" = 100'

# CORPUS CHRISTI

OIL DOCK NO.3





### NOTES

SHIP MAY BE MOORED HEADED IN EITHER DIRECTION.

MOORING LINES USED DEPEND ON SHIP'S POSITION.

SLIP HAS A MINIMUM DEPTH OF 37 FT. BELOW MEAN LOW TIDE ACCORDING TO SOUNDINGS MADE IN 1974.

BEAM UNLIMITED.

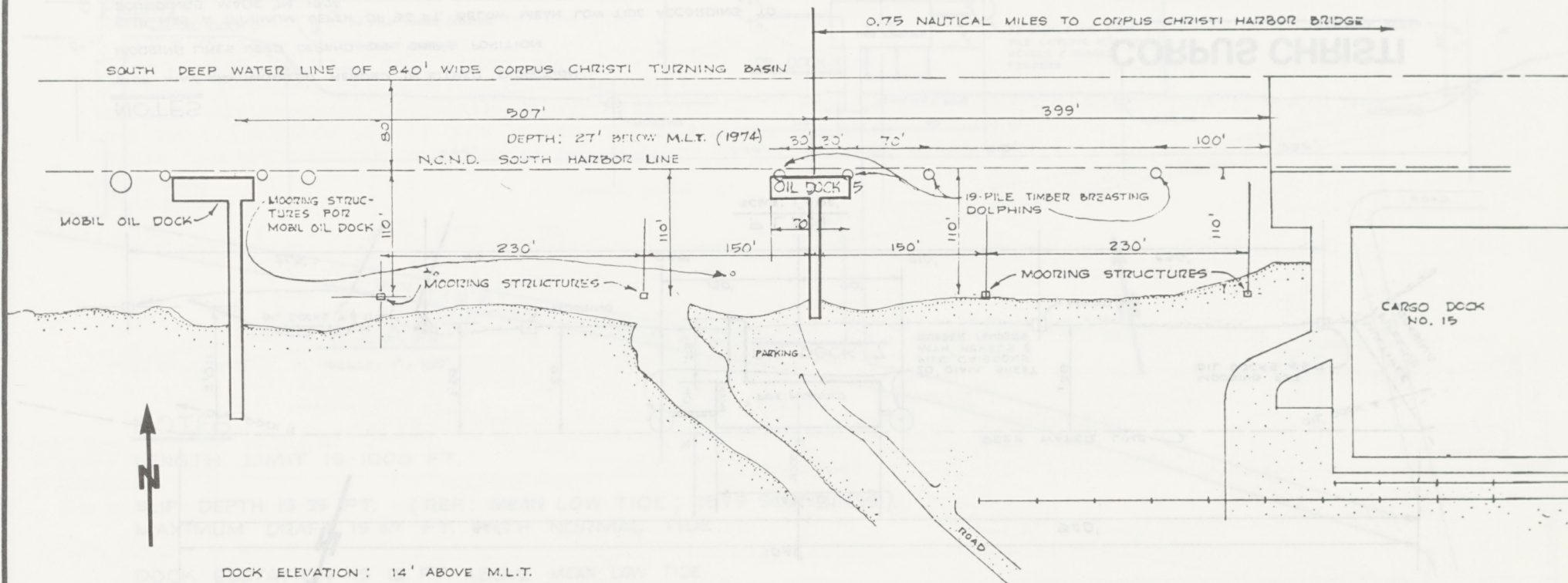
LENGTH LIMIT: 350 FT. SHIPS AT OIL DOCKS 4, 7 & 11 AT THE SAME TIME. LONGER SHIPS MAY BE BERTHED WHEN ADJACENT SLIP IS NOT BEING FULLY UTILIZED.

DOCK ELEVATION IS 16 FT. ABOVE MEAN LOW TIDE.

## CORPUS CHRISTI

### OIL DOCK No.4



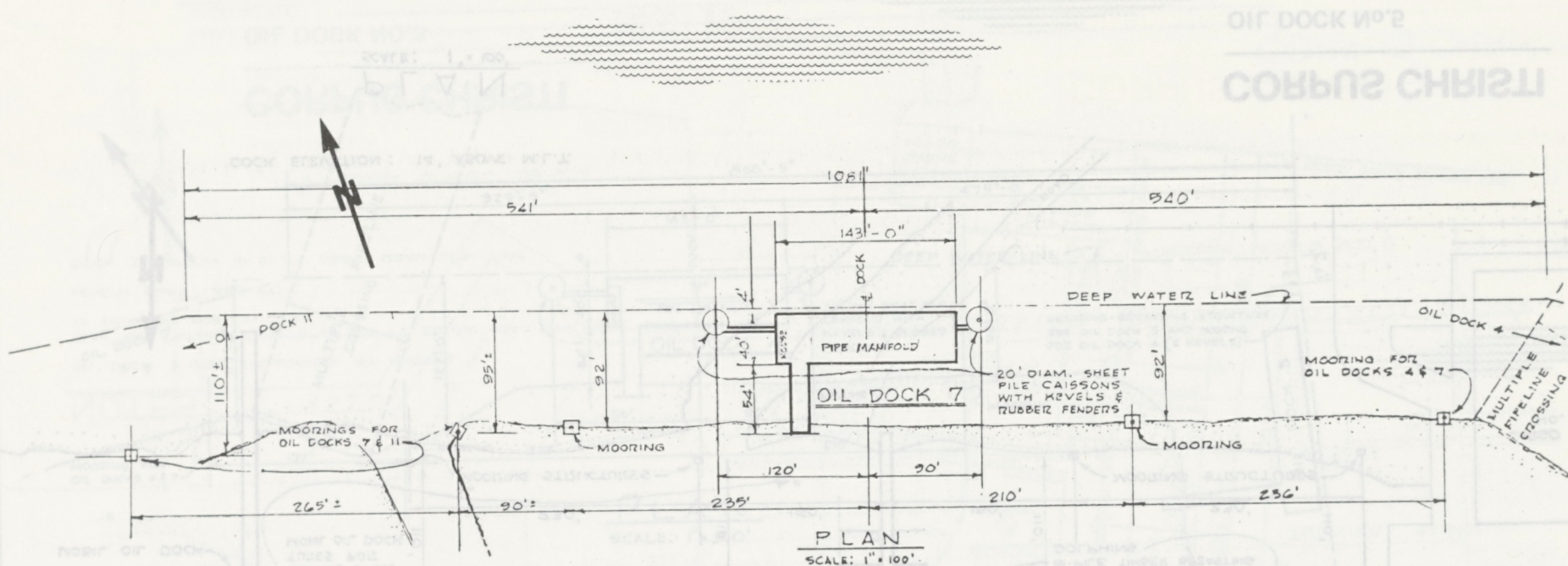


PLAN  
SCALE: 1" = 100'

## CORPUS CHRISTI

OIL DOCK No. 5





### NOTES

SHIP MAY BE MOORED HEADED IN EITHER DIRECTION.

MOORING LINES USED DEPEND ON SHIP'S POSITION

SLIP HAS A MINIMUM DEPTH OF 36 FT. BELOW MEAN LOW TIDE ACCORDING TO SOUNDINGS MADE IN 1976.

BEAM UNLIMITED.

LENGTH LIMIT: 350 FT. SHIPS AT OIL DOCKS 4, 7 & 11 AT THE SAME TIME. LONGER SHIPS MAY BE BERTHED WHEN ADJACENT SLIP IS NOT BEING FULLY UTILIZED.

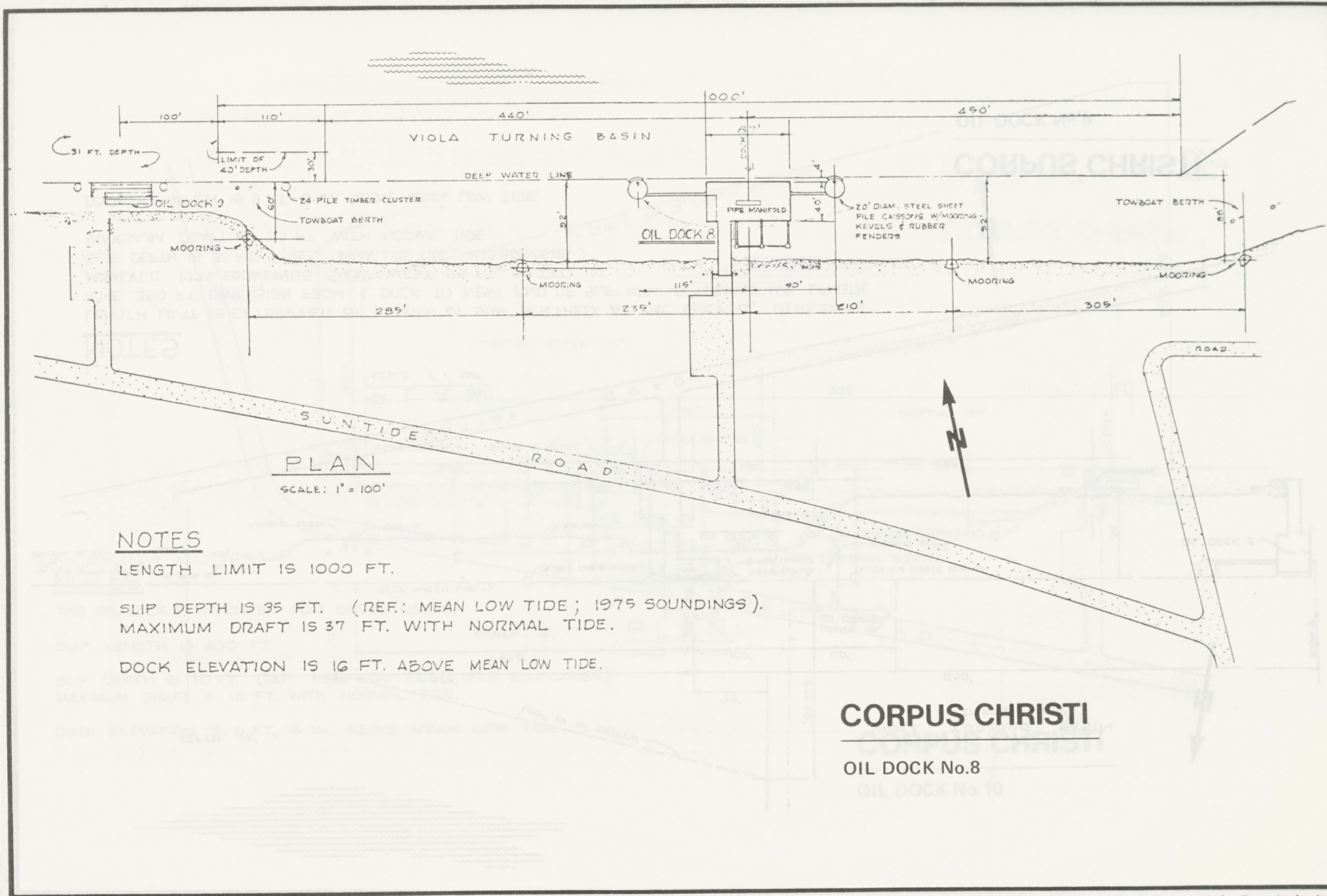
DOCK ELEVATION IS 16 FT. ABOVE MEAN LOW TIDE.

## CORPUS CHRISTI

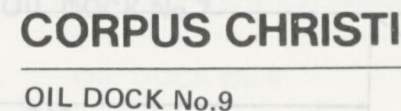
### OIL DOCK No. 7

OIL DOCK No. 4





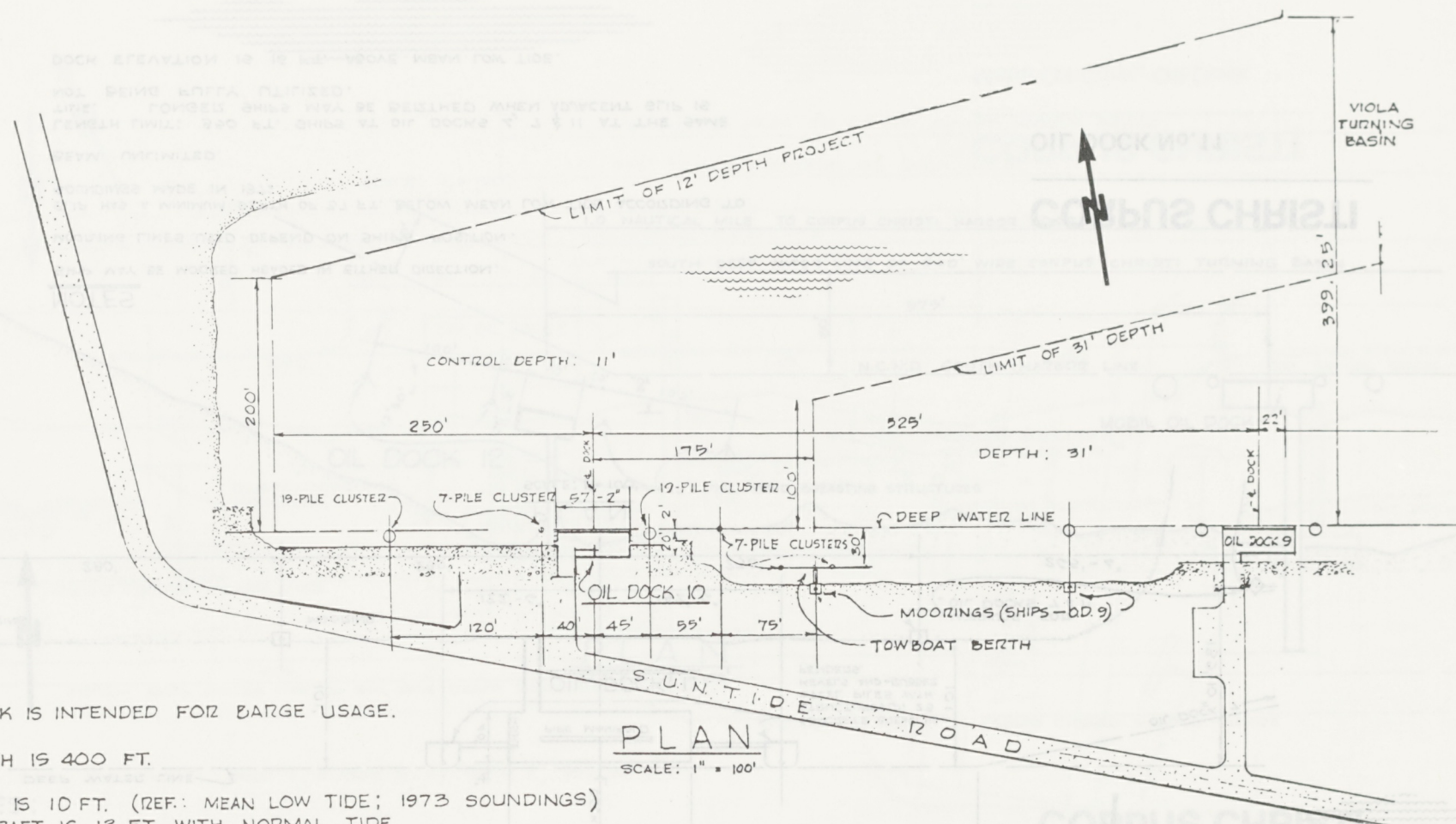




LENGTH LIMIT IS DETERMINED BY LENGTH OF SHIP BERTHED AT OIL DOCK B; OTHERWISE THE 350 FT. DIMENSION FROM E DOCK TO WEST END OF SLIP WOULD DETERMINE MAX. LENGTH, HOWEVER 1973 SOUNDINGS SHOW WEST 75 FT. SILTED IN.  
SLIP DEPTH IS 31 FT. (REF.: MEAN LOW TIDE; 1973 SOUNDINGS)  
MAXIMUM DRAFT IS 33 FT. WITH NORMAL TIDE.

DOCK ELEVATION IS 9 FT.-6 IN. ABOVE MEAN LOW TIDE.





## NOTES

THIS OIL DOCK IS INTENDED FOR BARGE USAGE.

SLIP LENGTH IS 400 FT.

SLIP DEPTH IS 10 FT. (REF.: MEAN LOW TIDE; 1973 SOUNDINGS)  
MAXIMUM DRAFT IS 12 FT. WITH NORMAL TIDE.

DOCK ELEVATION IS 9 FT., 6 IN. ABOVE MEAN LOW TIDE.

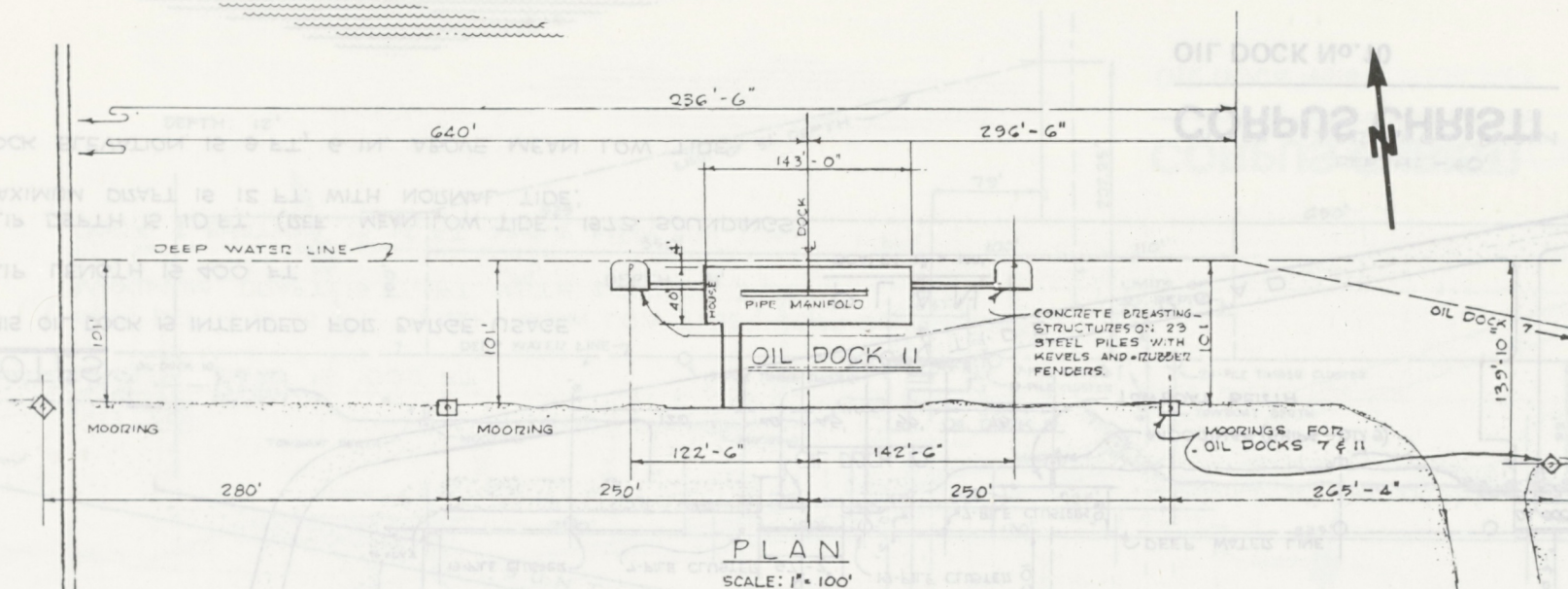
PLAN

SCALE: 1" = 100'

**CORPUS CHRISTI**

OIL DOCK No.10





### NOTES

SHIP MAY BE MOORED HEADED IN EITHER DIRECTION.

MOORING LINES USED DEPEND ON SHIP'S POSITION.

SLIP HAS A MINIMUM DEPTH OF 37 FT. BELOW MEAN LOW TIDE ACCORDING TO SOUNDINGS MADE IN 1972.

BEAM UNLIMITED.

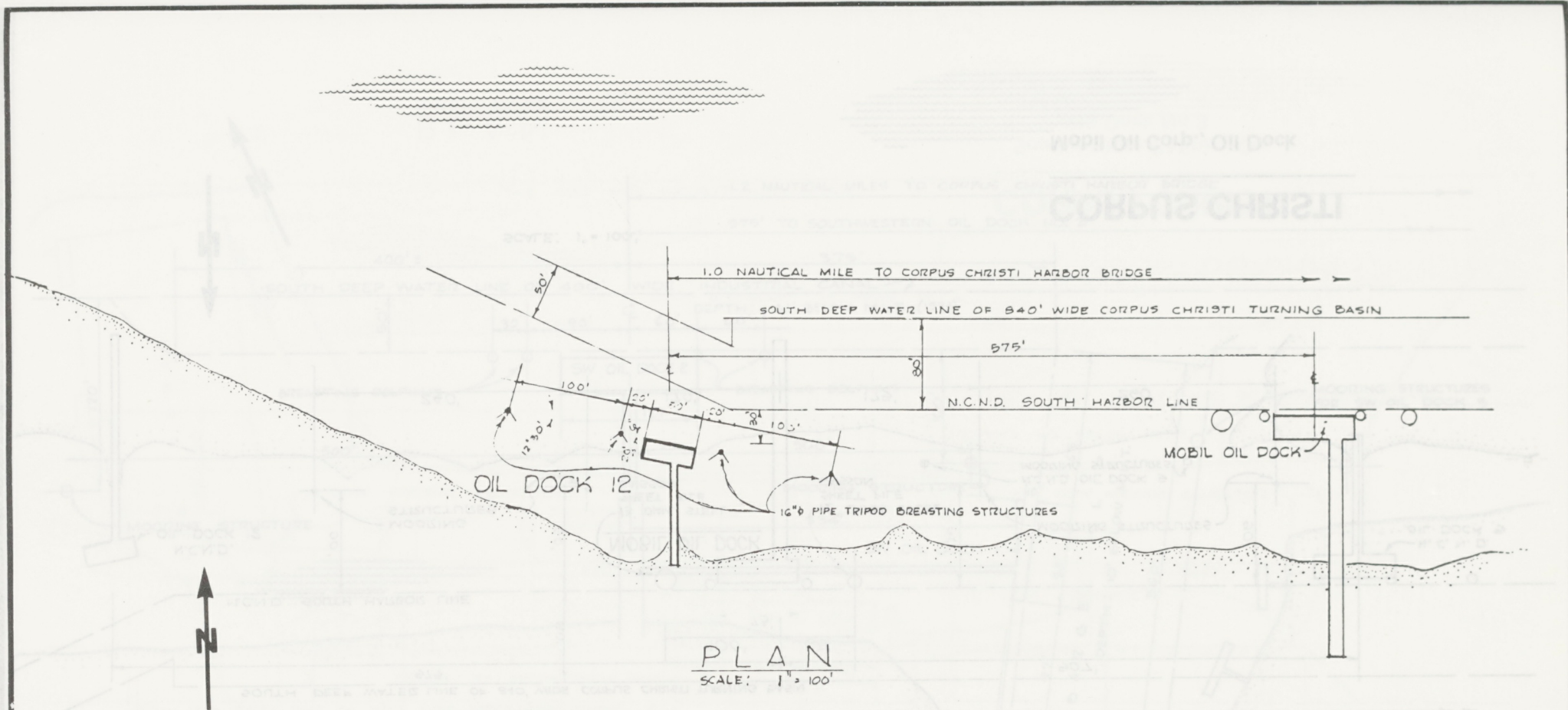
LENGTH LIMIT: 350 FT. SHIPS AT OIL DOCKS 4, 7 & 11 AT THE SAME TIME. LONGER SHIPS MAY BE BERTHED WHEN ADJACENT SLIP IS NOT BEING FULLY UTILIZED.

DOCK ELEVATION IS 16 FT. ABOVE MEAN LOW TIDE.

## CORPUS CHRISTI

OIL DOCK No.11





# NOTES:

OIL DOCK 12 FOR BARGE USE ONLY.  
 DEPTH OF SLIP IS 9 FT. BELOW MEAN LOW TIDE, ACCORDING TO SOUNDINGS MADE IN 1974.  
 DOCK ELEVATION IS 8 FT. ABOVE M.L.T.

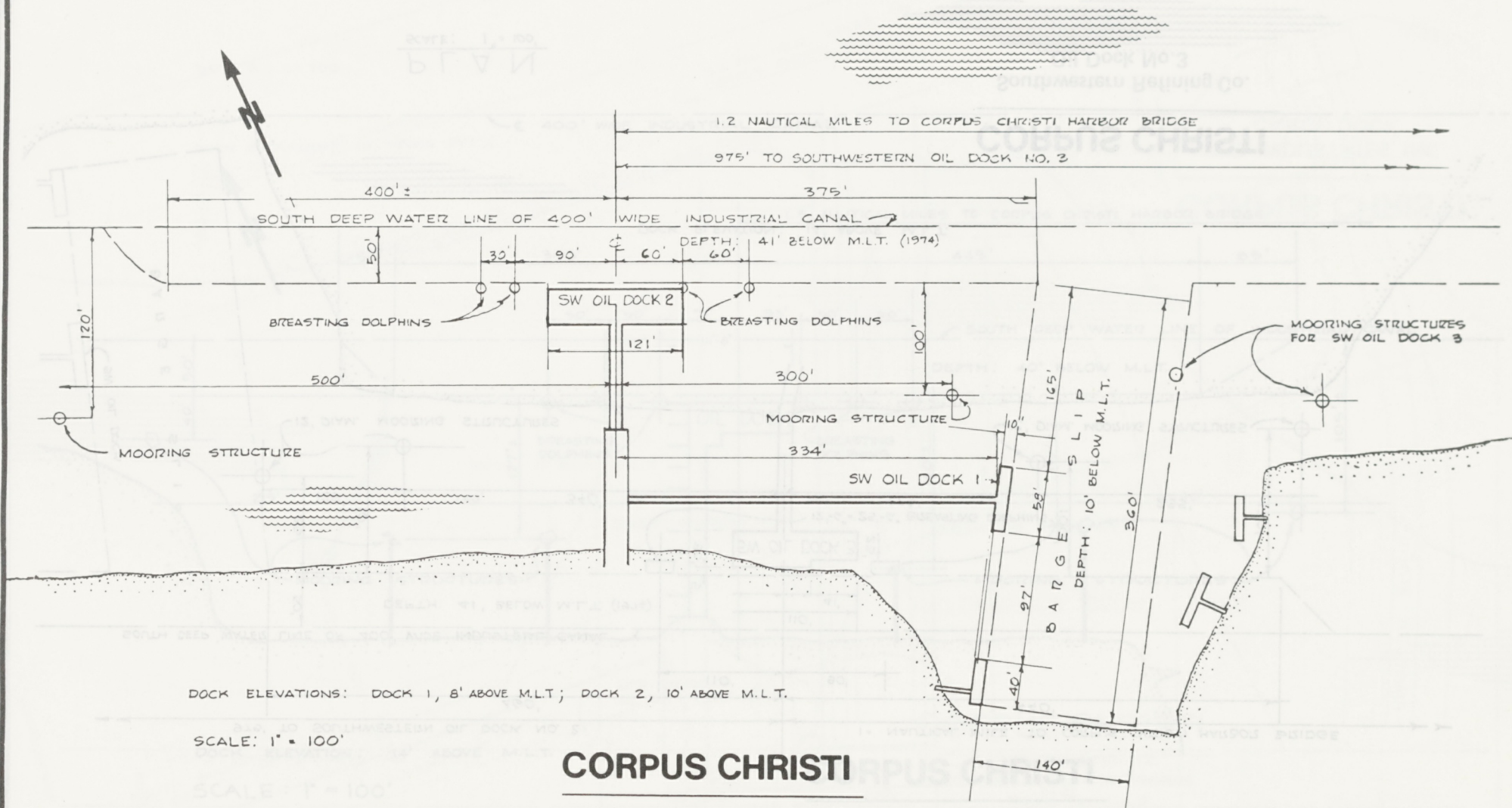
## CORPUS CHRISTI

OIL DOCK No.12



Mobil Oil Corp., Oil Dock



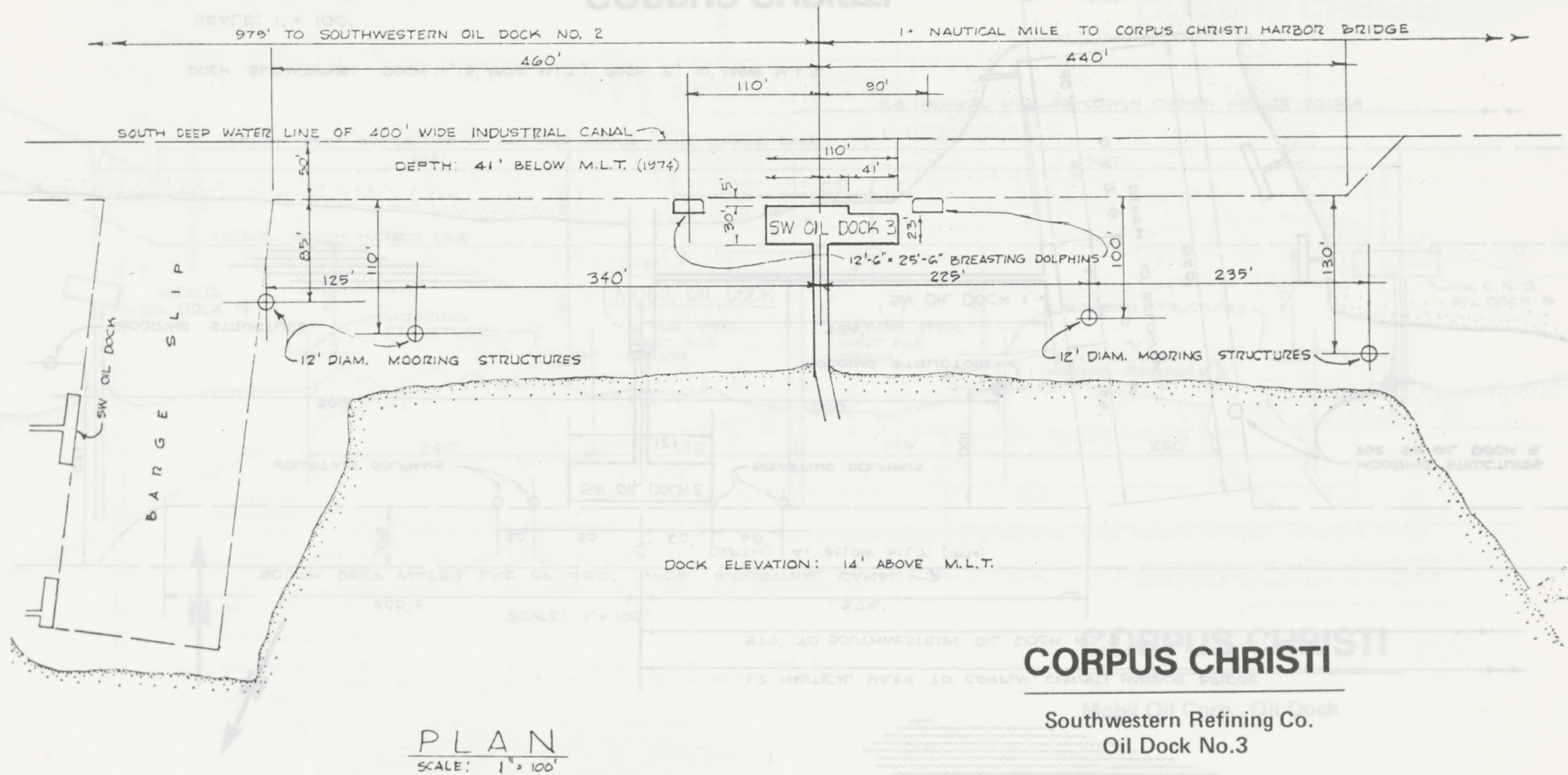


## CORPUS CHRISTI

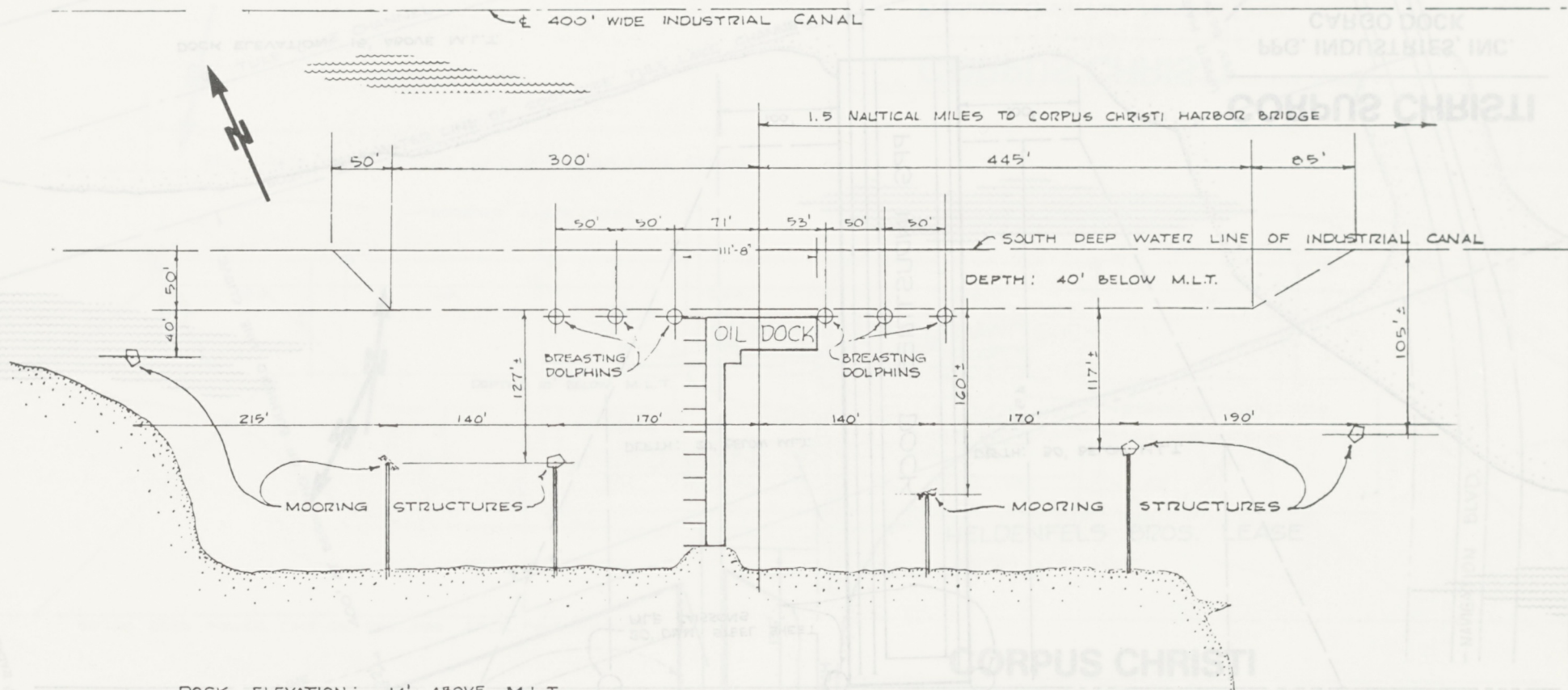
Southwestern Refining Co.  
Oil Docks No.1 & 2

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DOCK ELEVATION: 14' ABOVE M.L.T.

SCALE: 1" = 100'

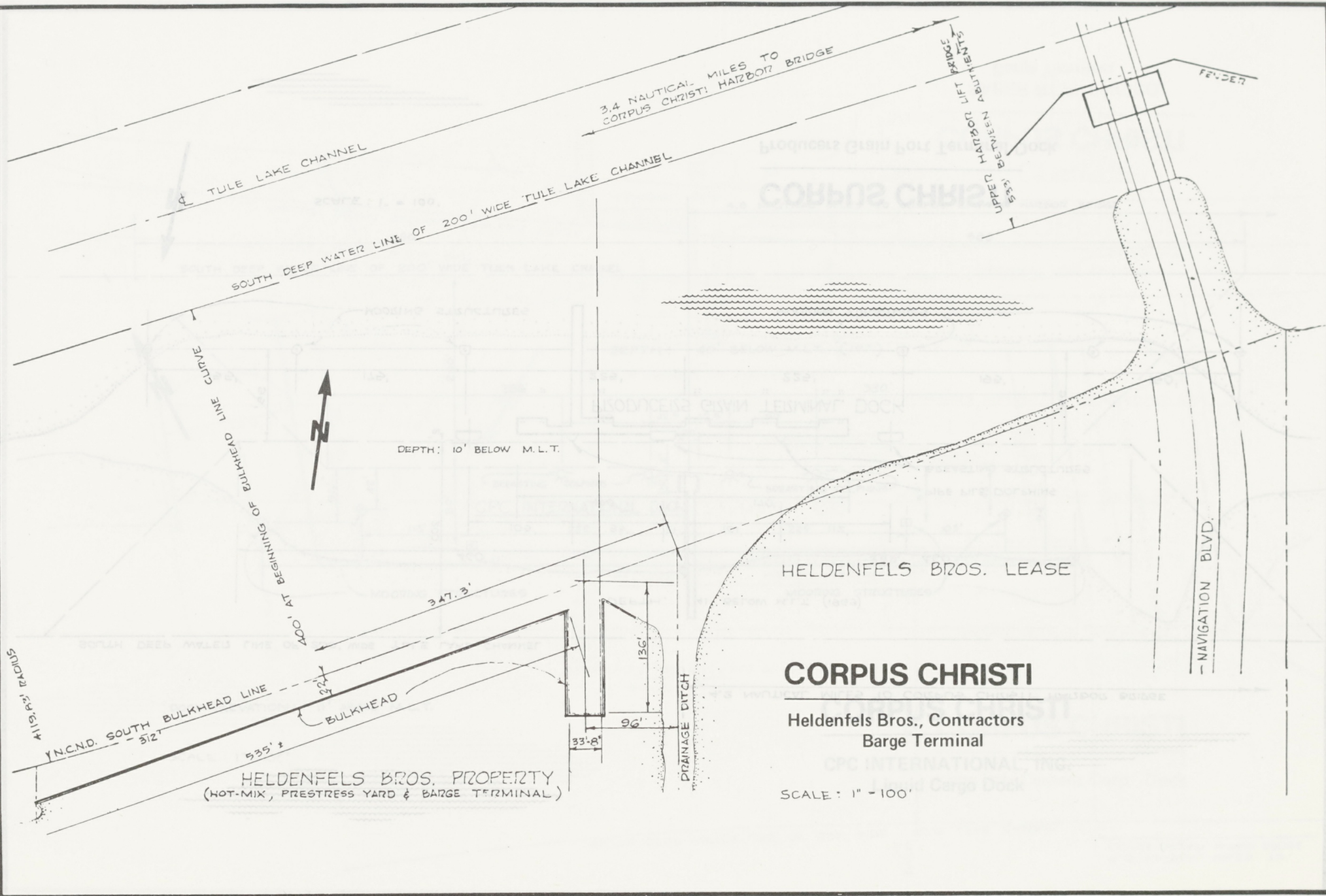
## CORPUS CHRISTI

Champlin Petroleum Co.  
Oil Dock

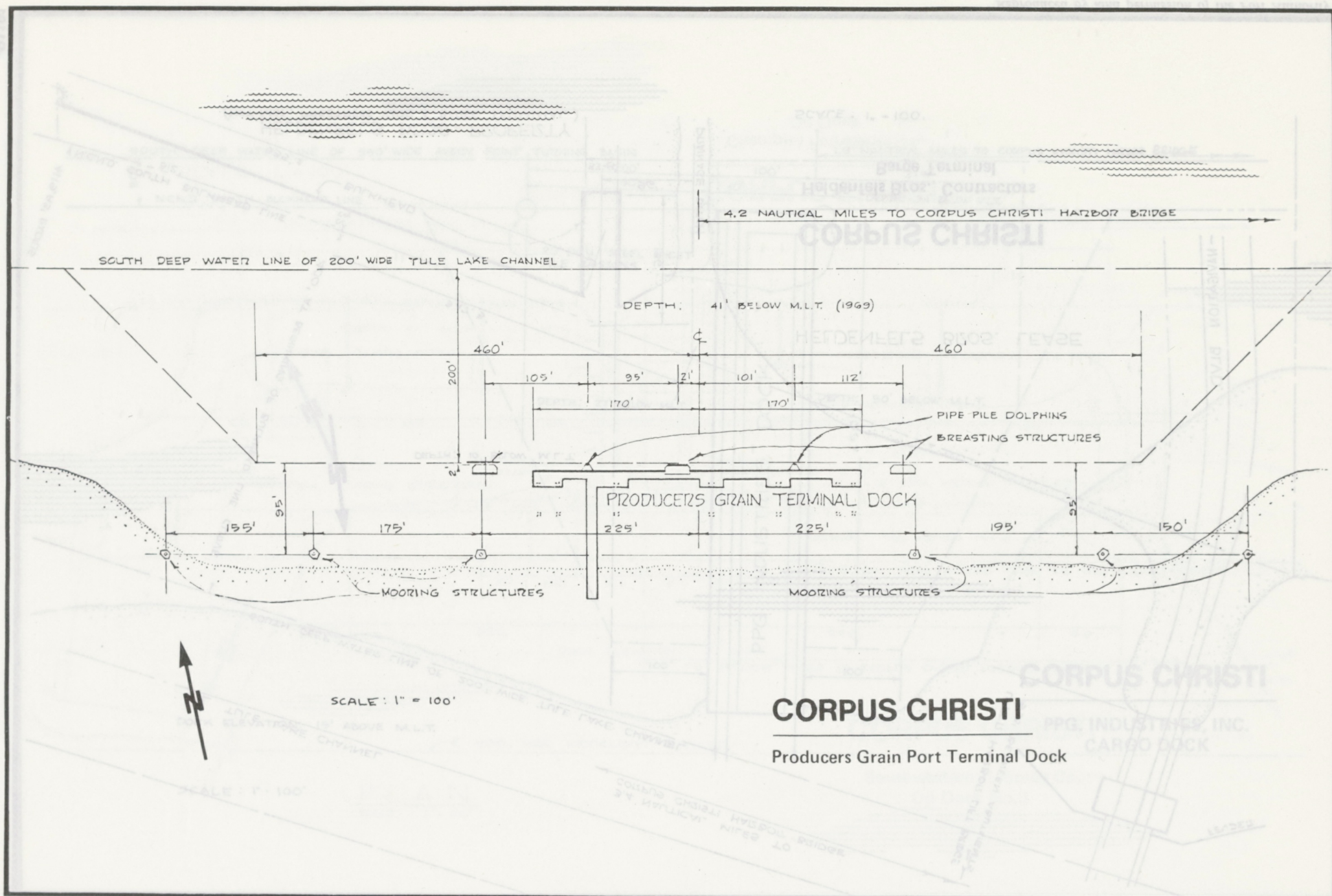




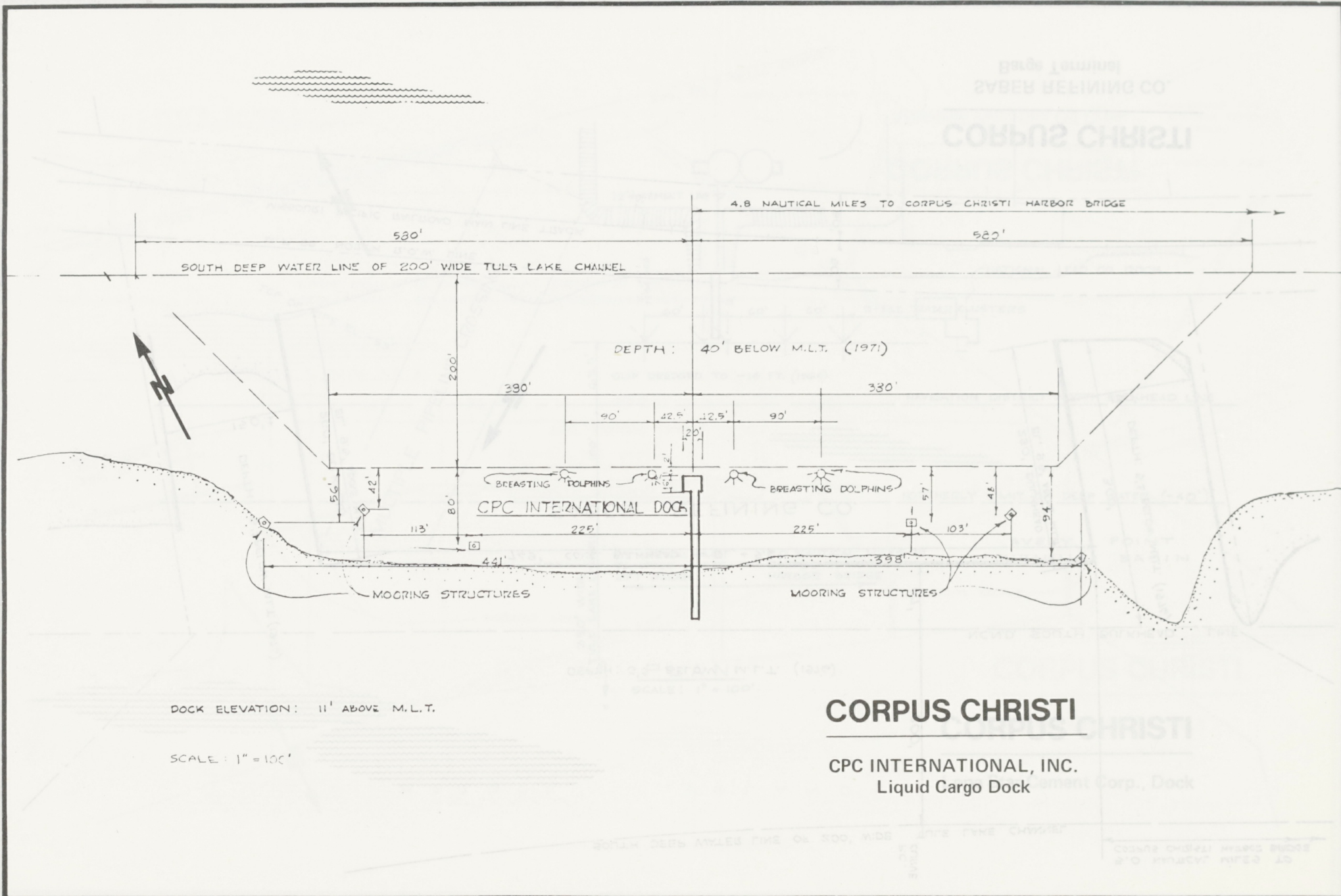




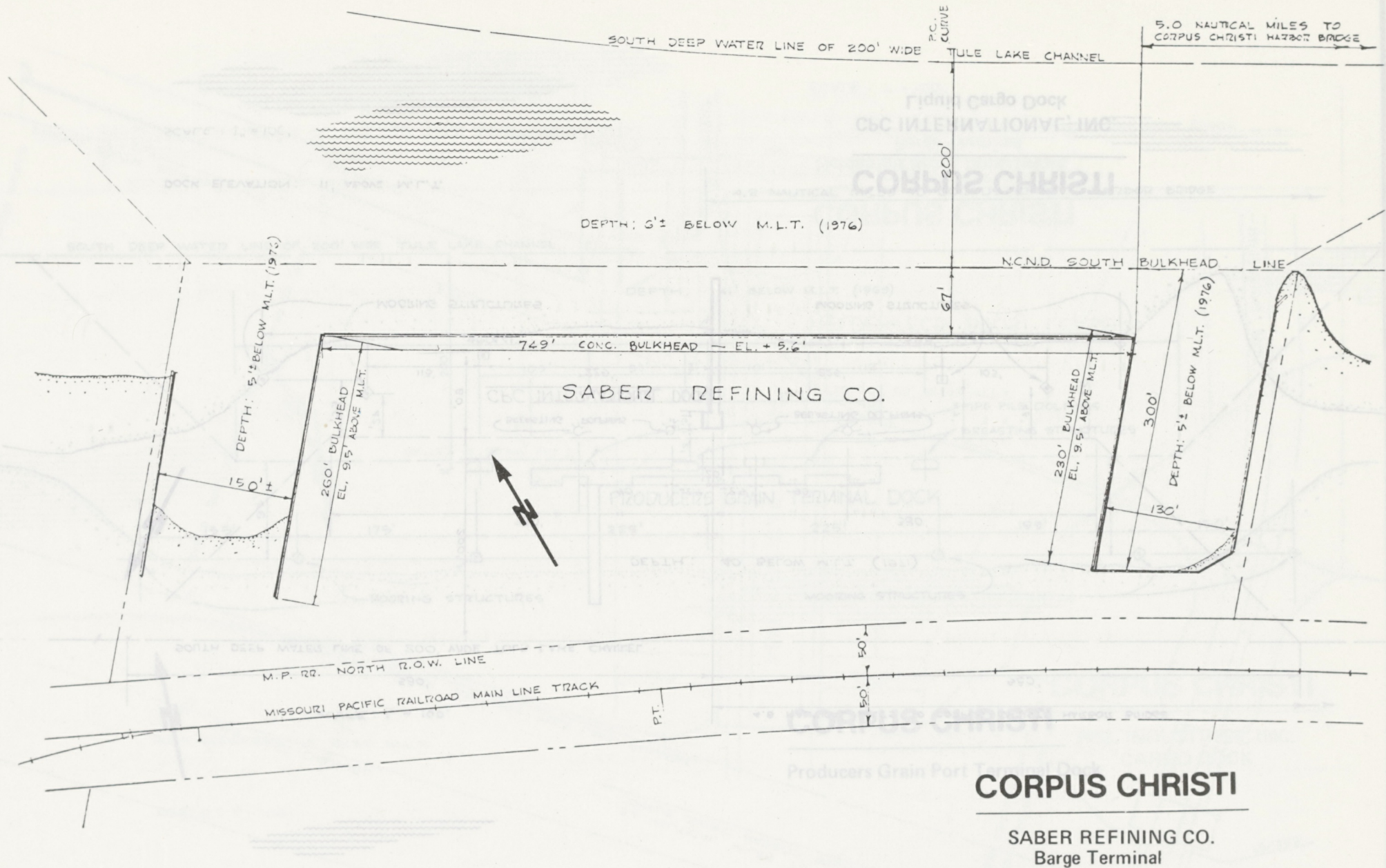




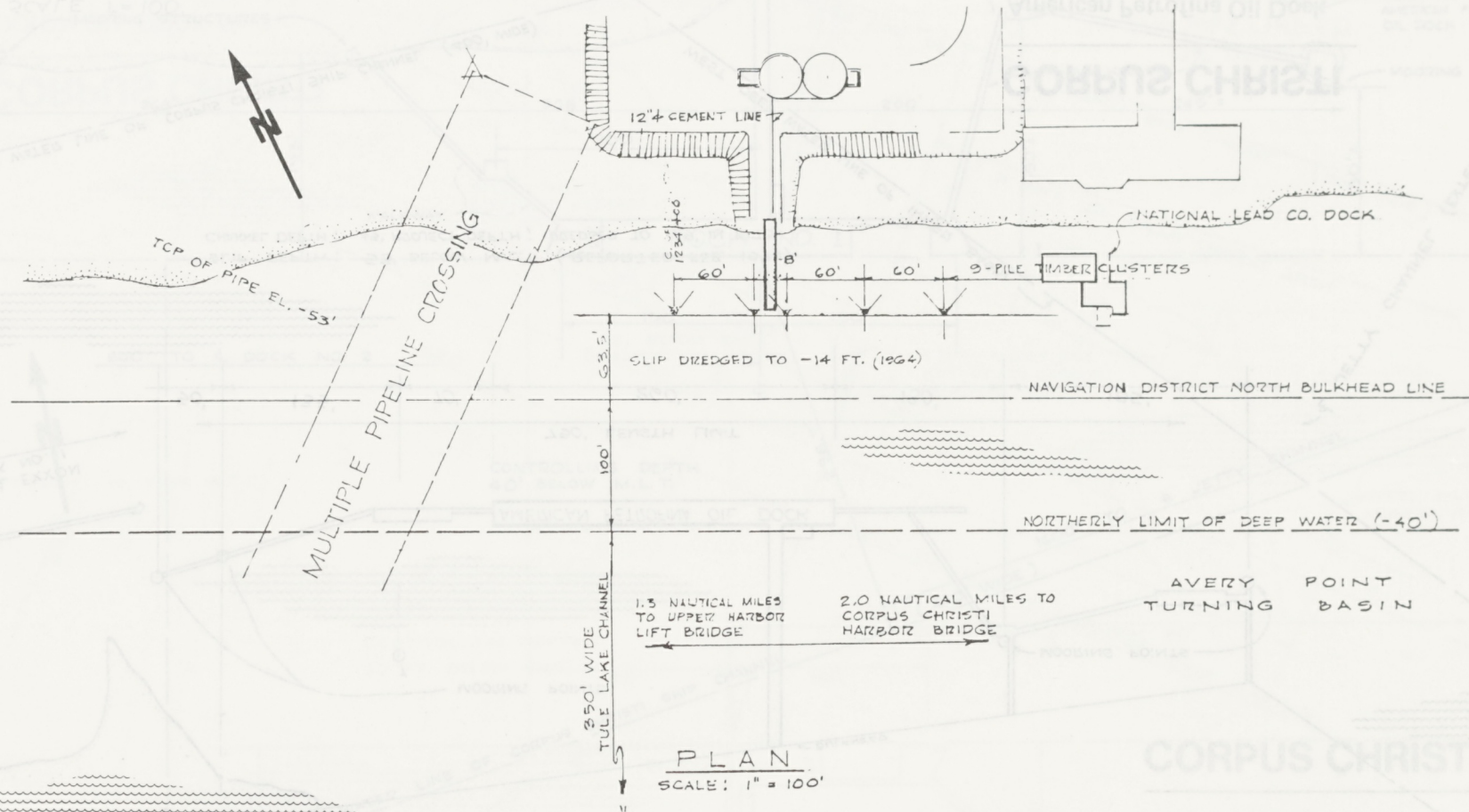








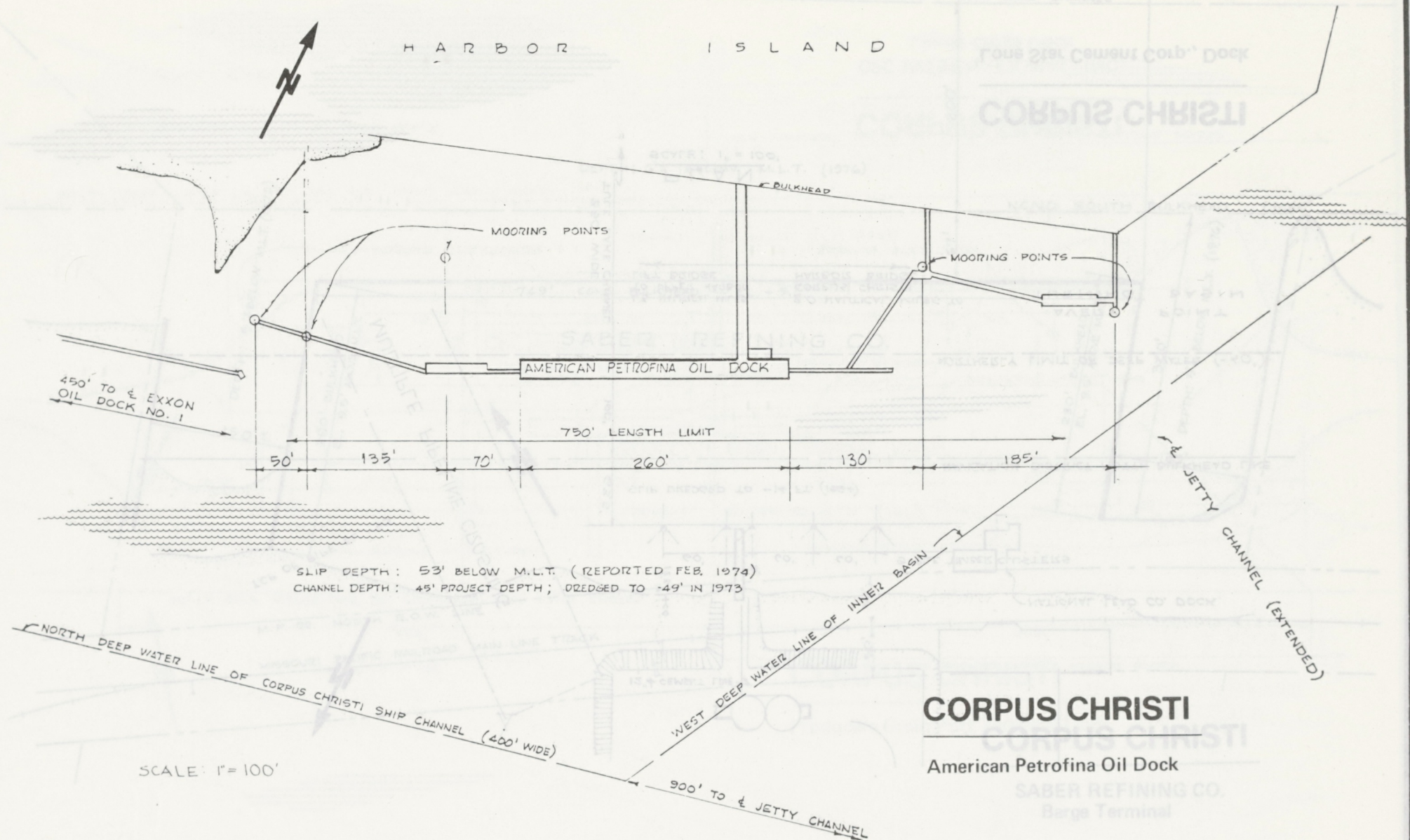




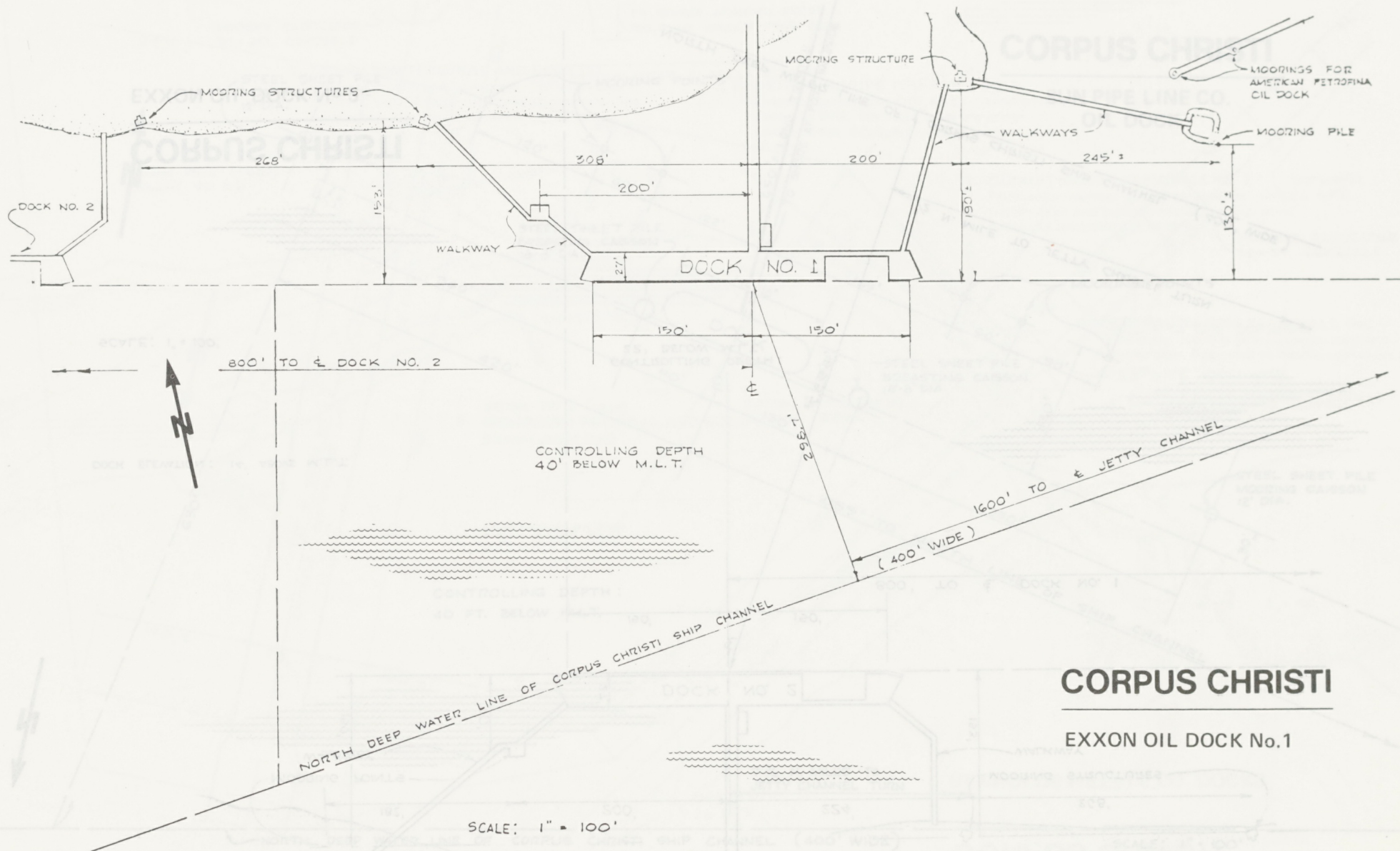
## CORPUS CHRISTI

Lone Star Cement Corp., Dock







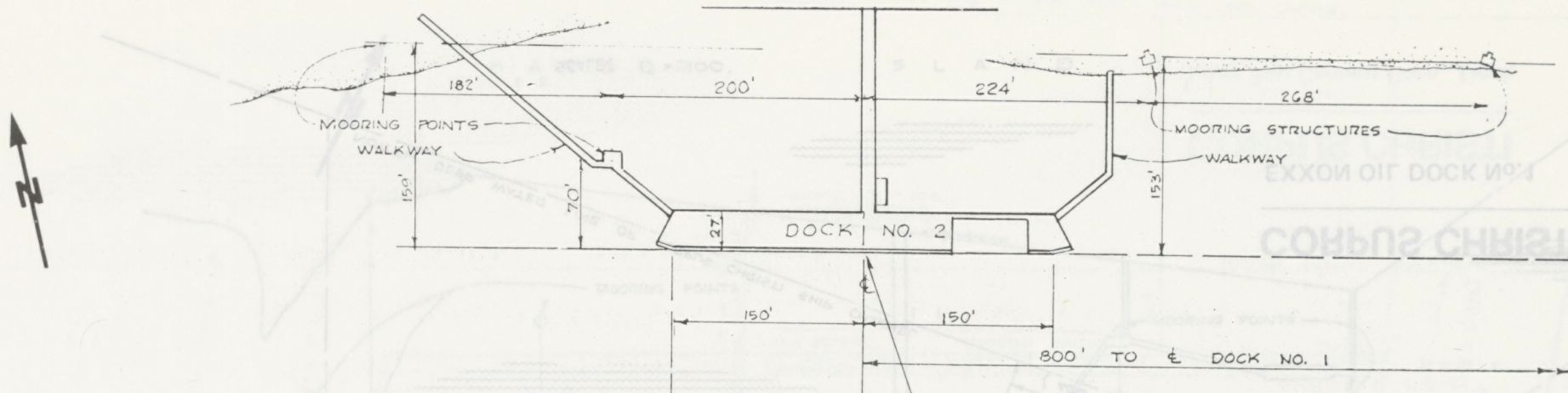


## CORPUS CHRISTI

EXXON OIL DOCK No. 1

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DOCK ELEVATION: 14' ABOVE M.L.T.

SCALE: 1" = 100'

CONTROLLING DEPTH:  
22' BELOW M.L.T.

**CORPUS CHRISTI**

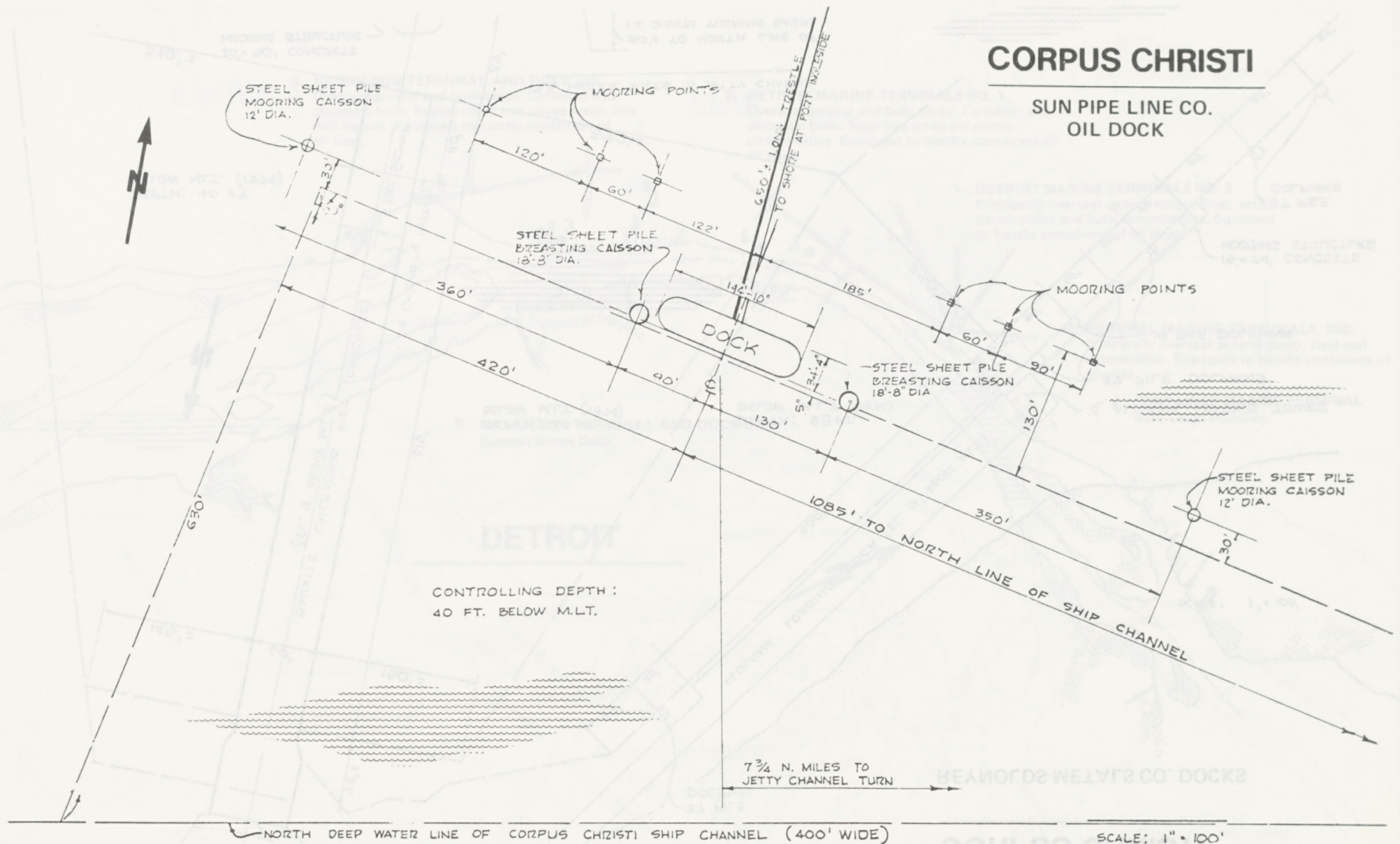
EXXON OIL DOCK No.2

1/2 N. MILE TO JETTY CHANNEL TURN  
NORTH DEEP WATER LINE OF CORPUS CHRISTI SHIP CHANNEL (400' WIDE)



# CORPUS CHRISTI

## SUN PIPE LINE CO. OIL DOCK

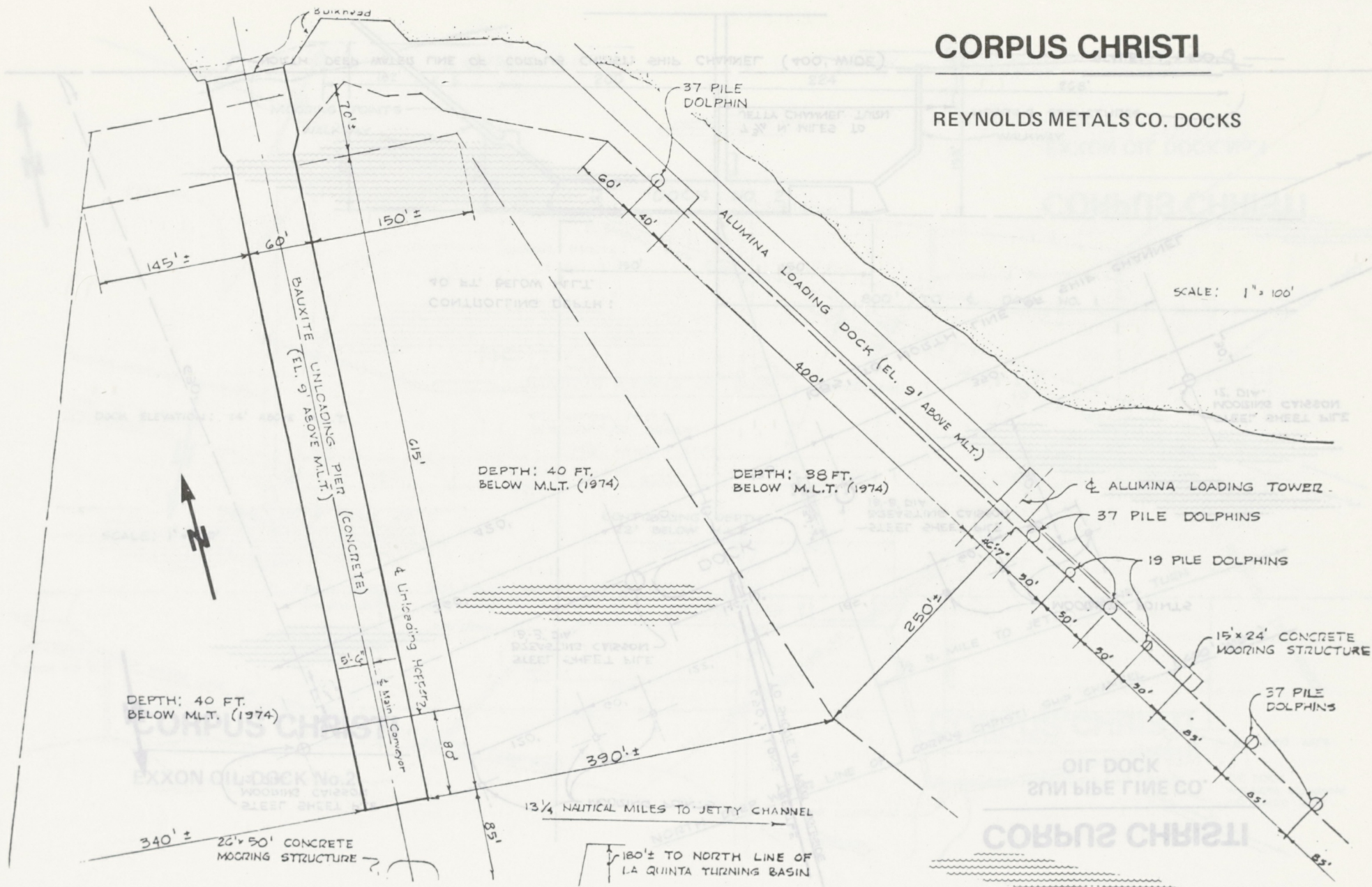




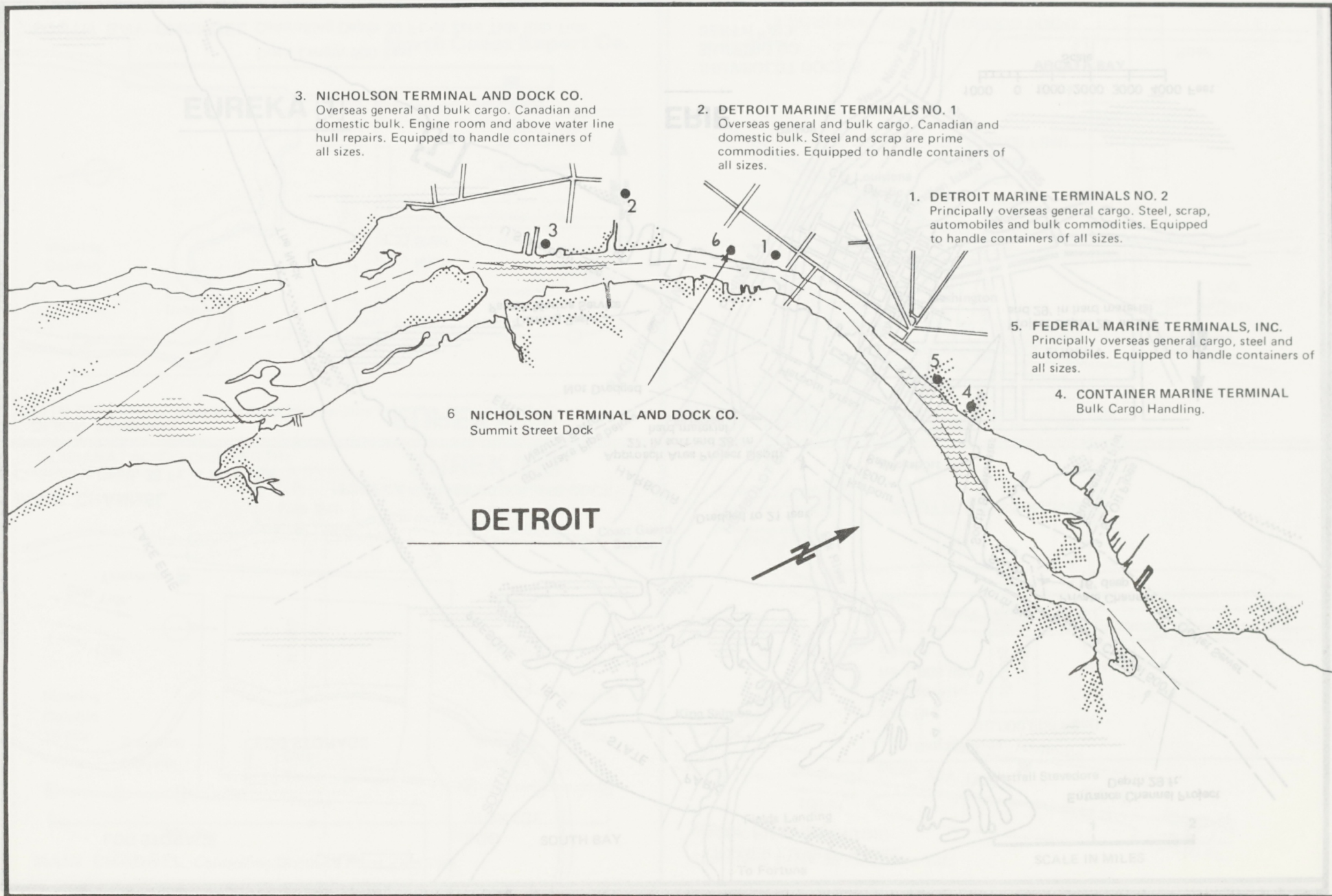
# CORPUS CHRISTI

## REYNOLDS METALS CO. DOCKS

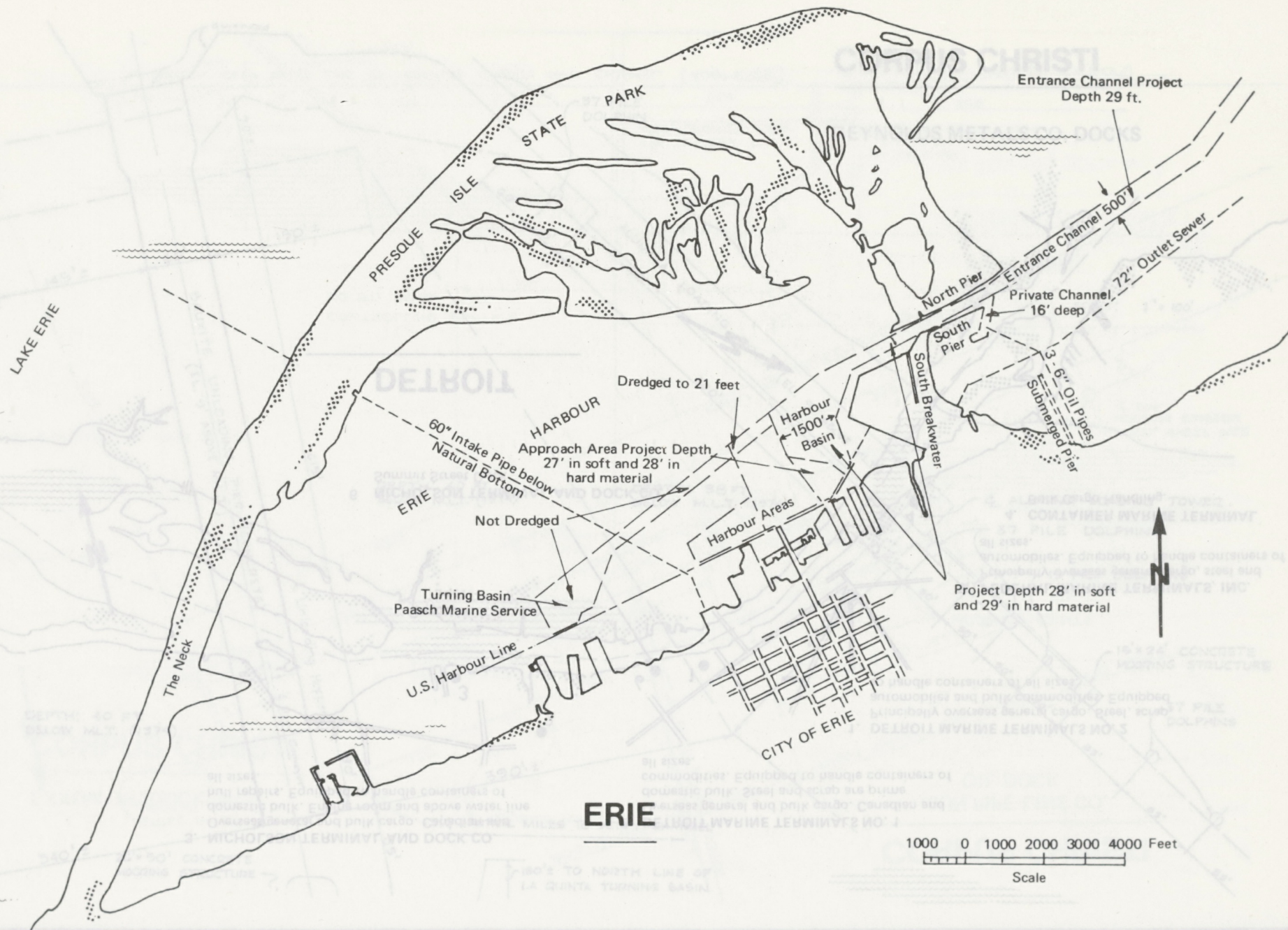
SCALE: 1" = 100'





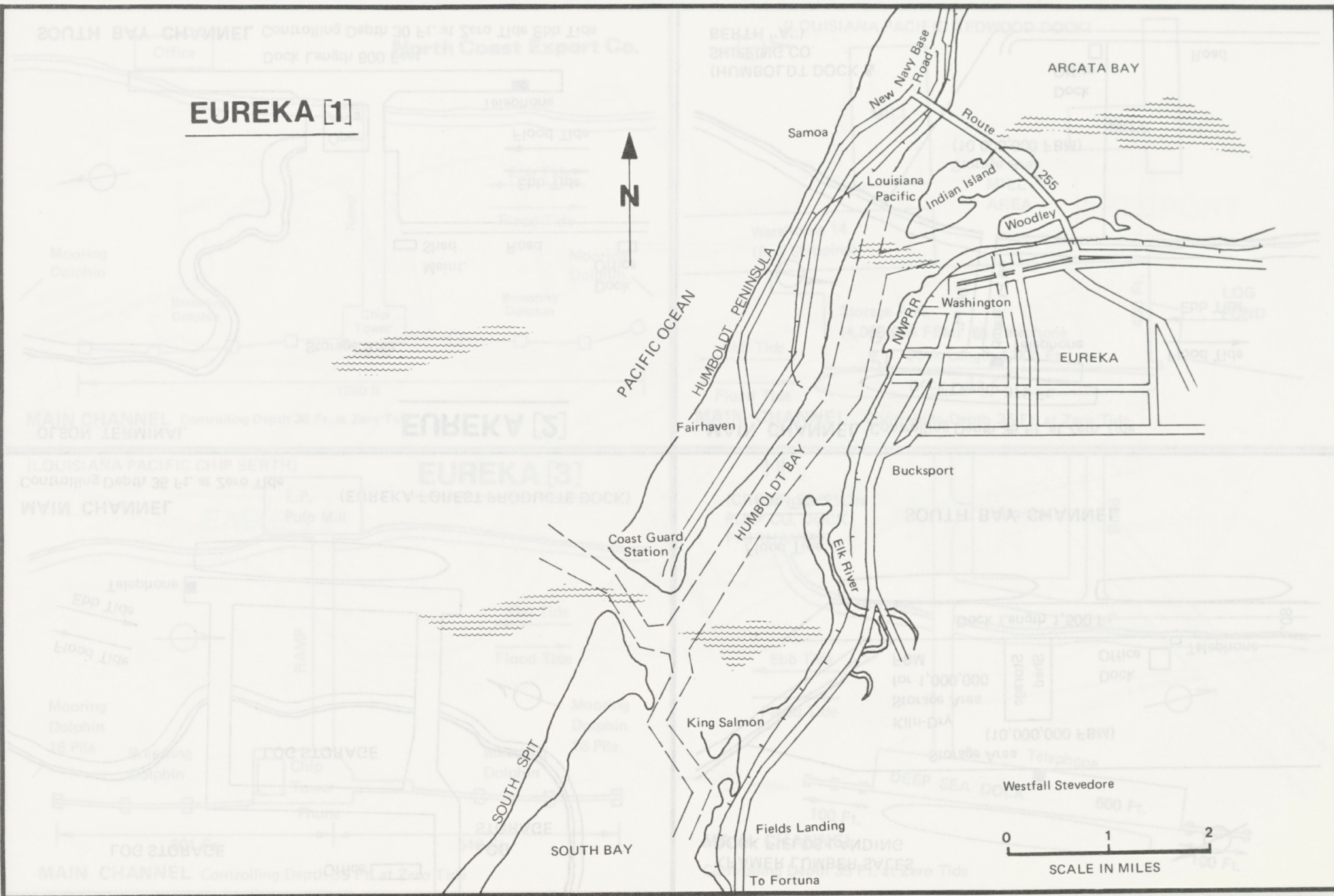








# EUREKA [1]

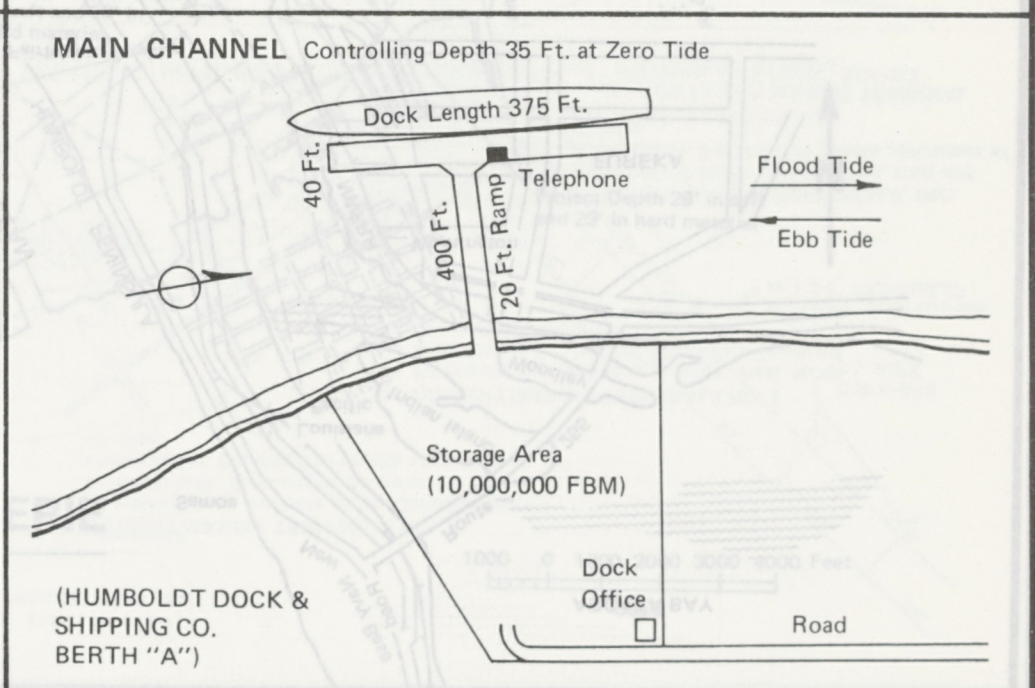
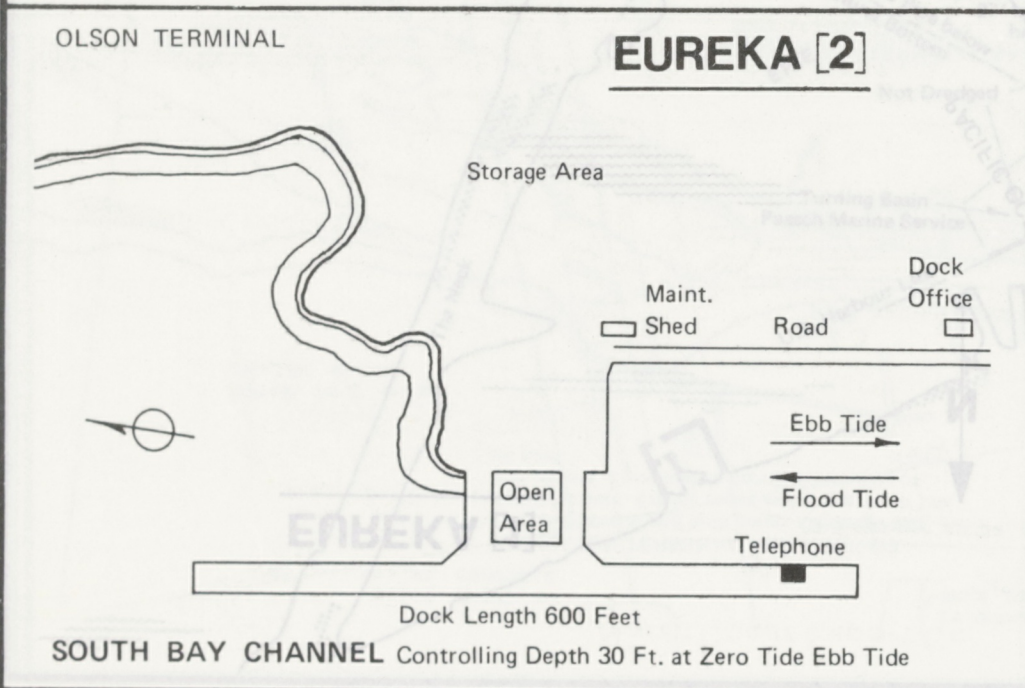
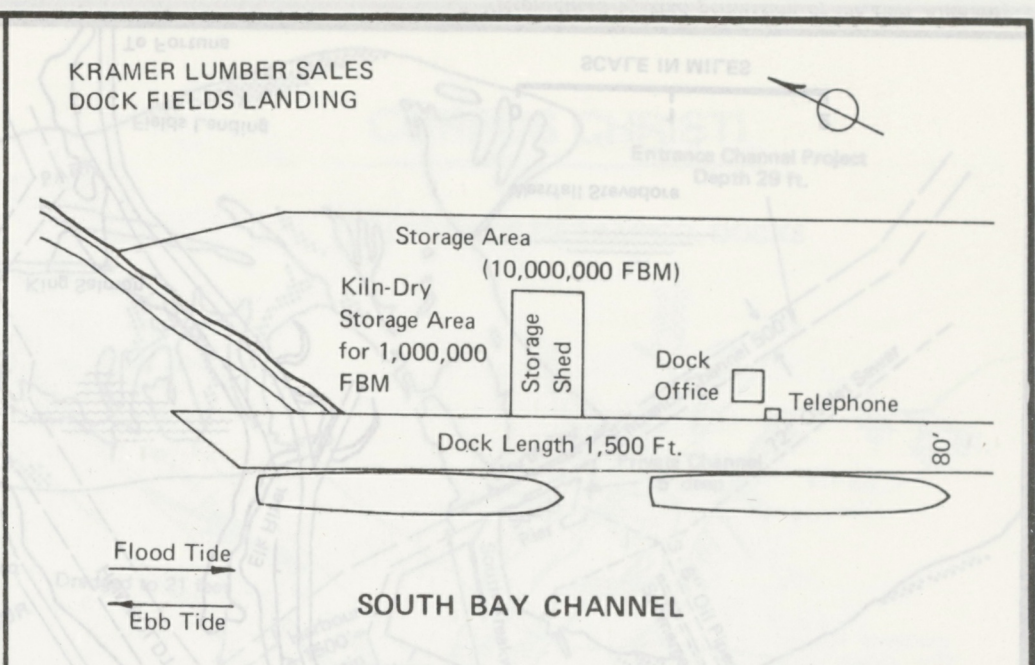
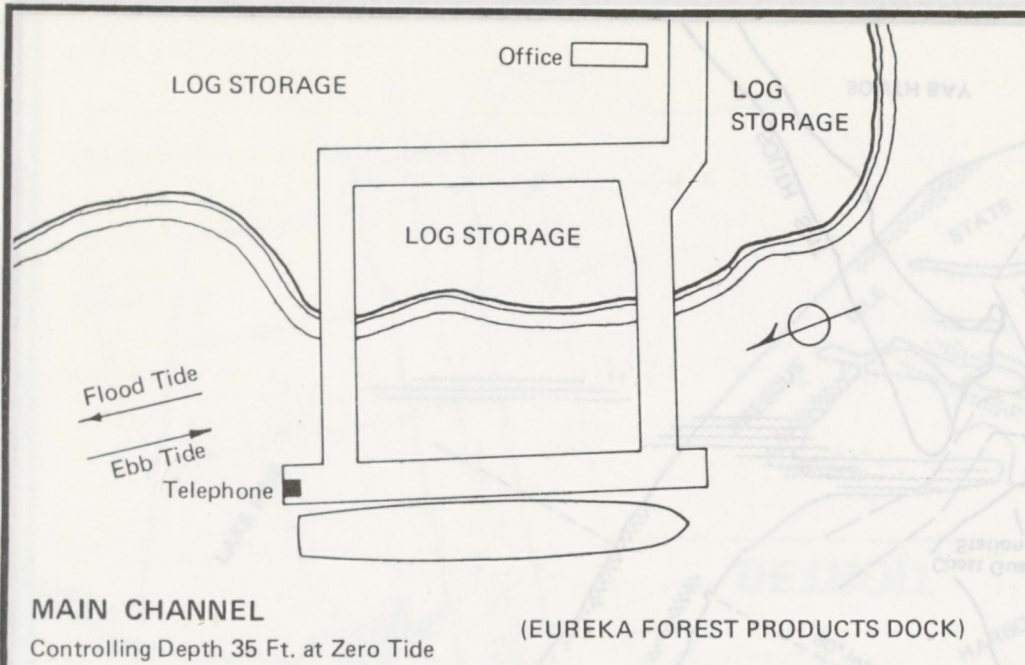


Westfall Stevedore

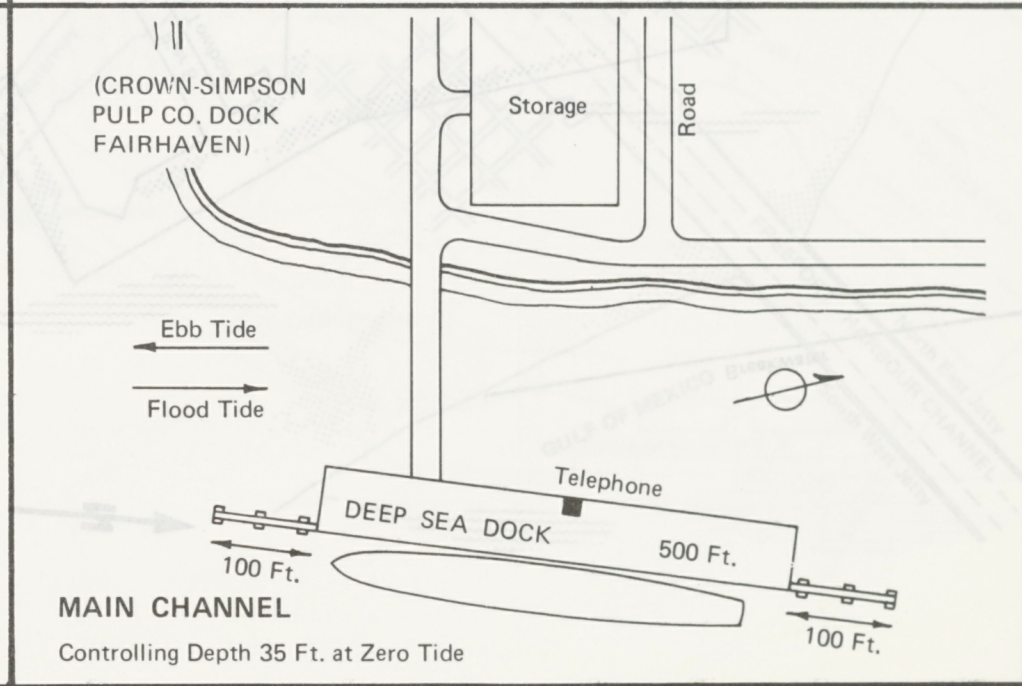
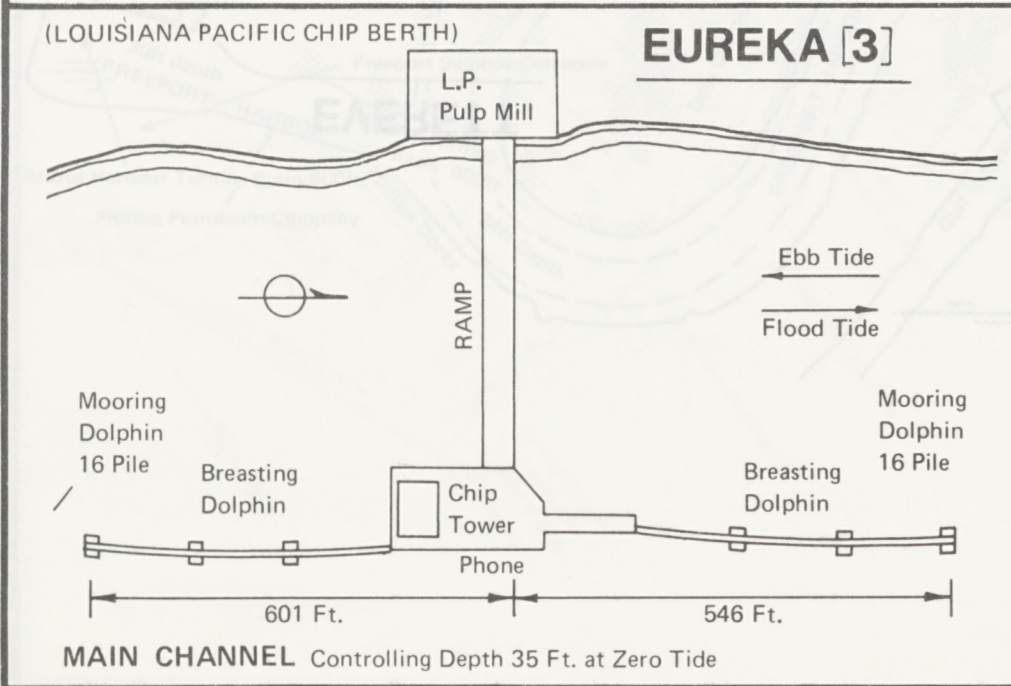
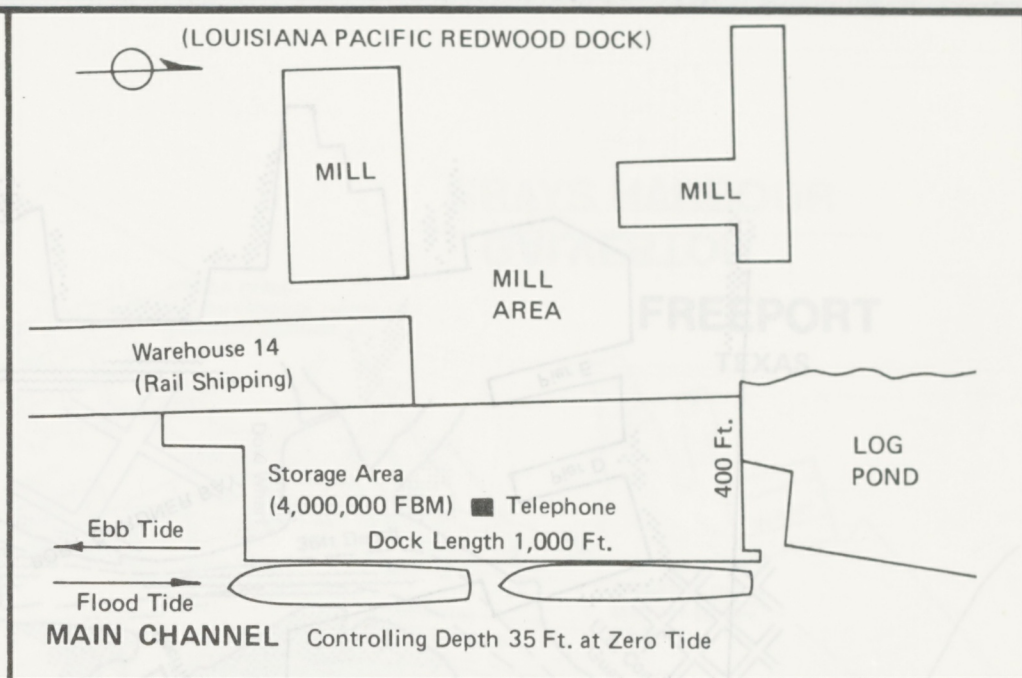
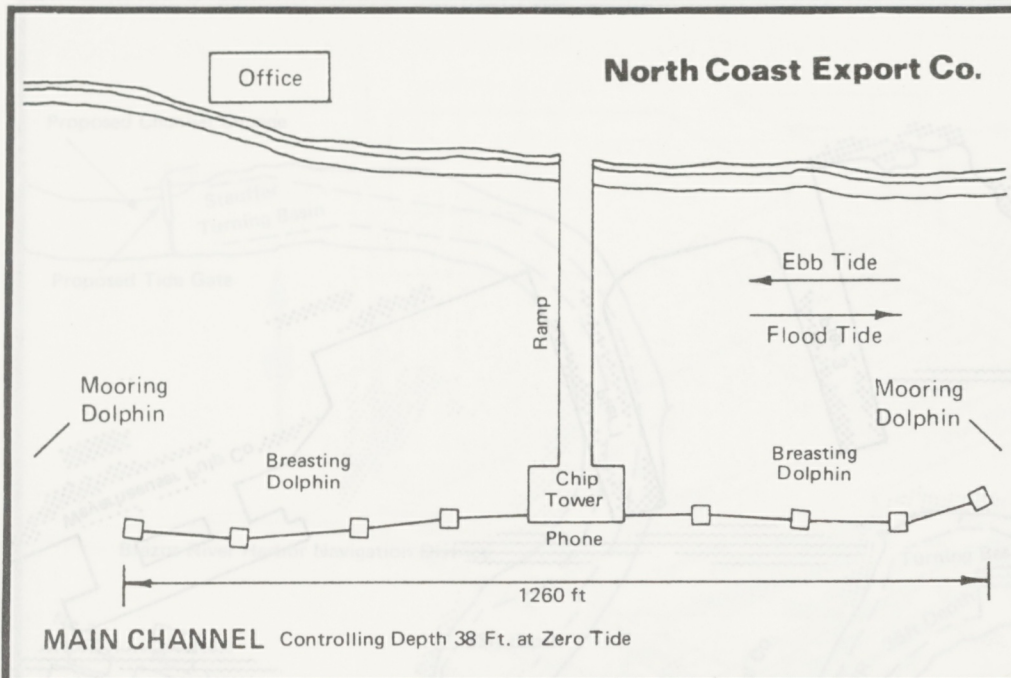
0 1 2  
SCALE IN MILES

"Reproduced by kind permission of the Port Authority".

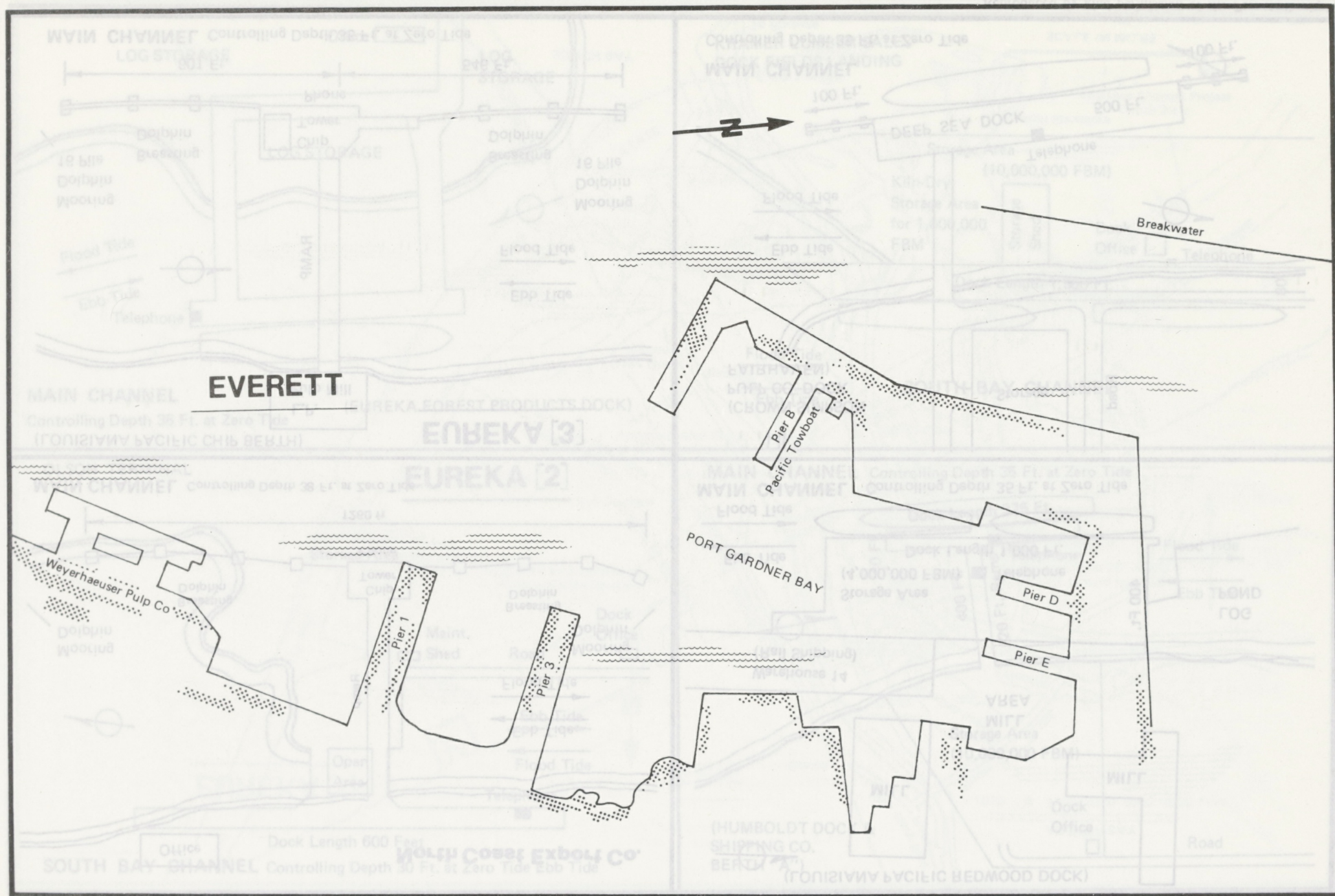




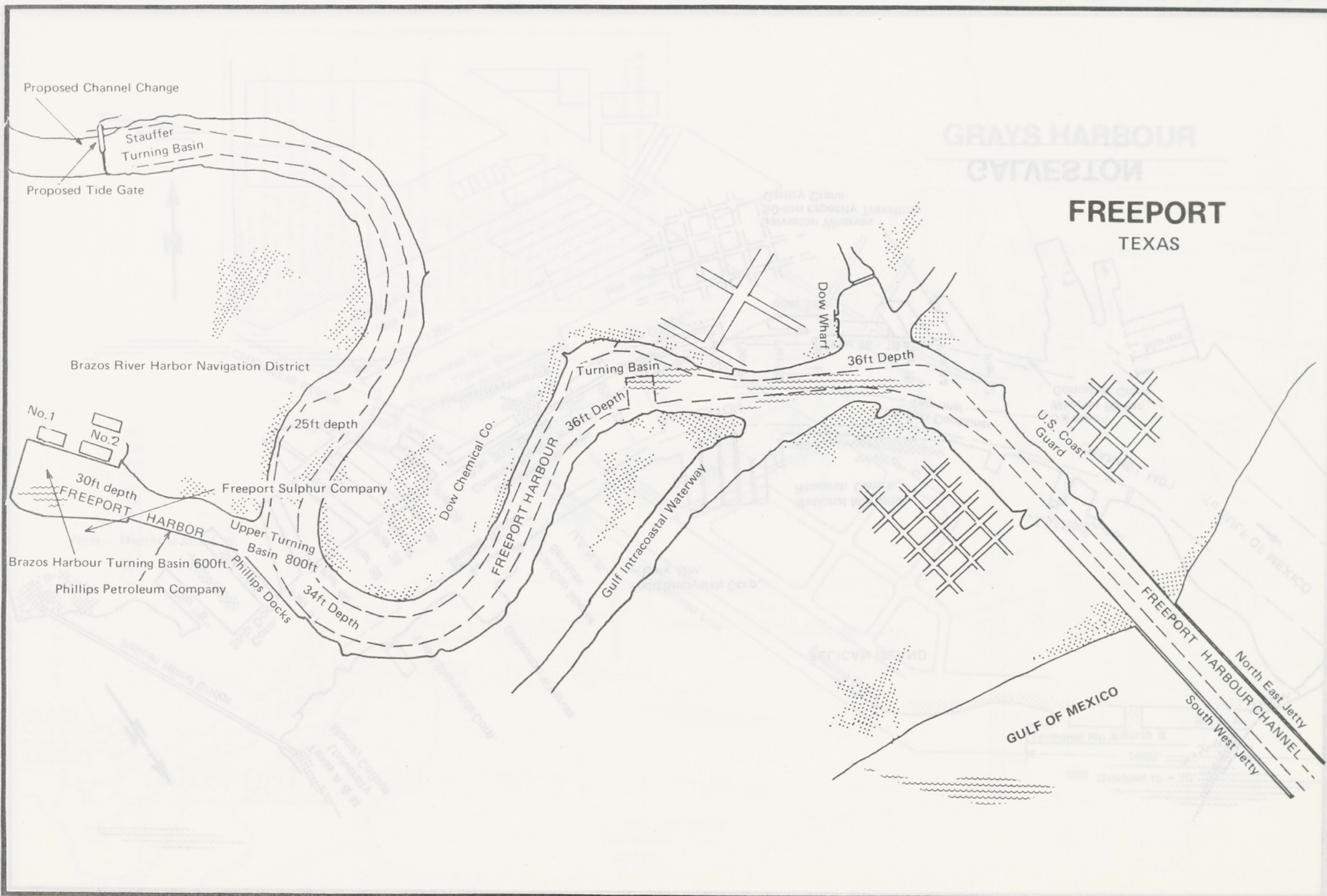








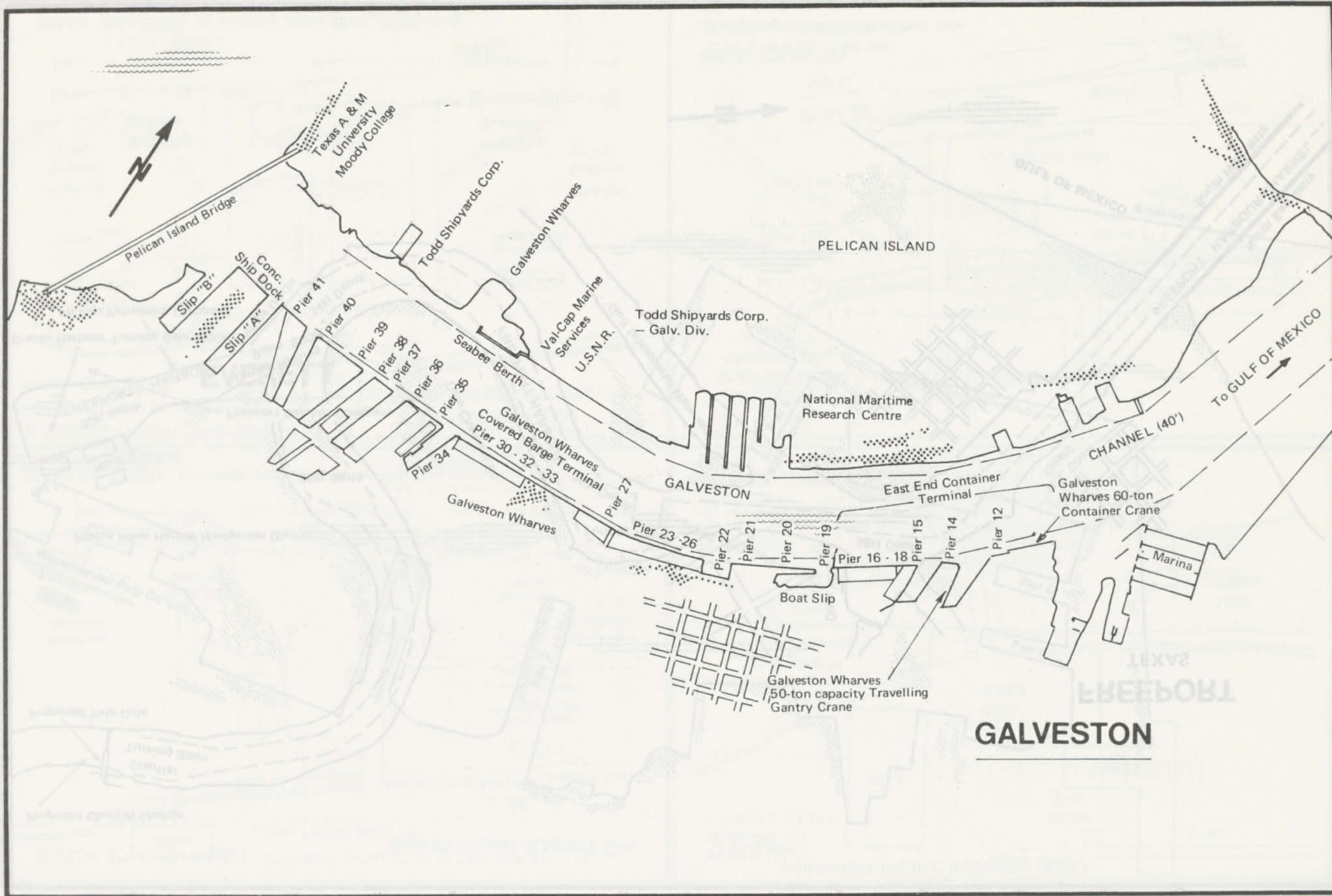




# FREEPORT TEXAS

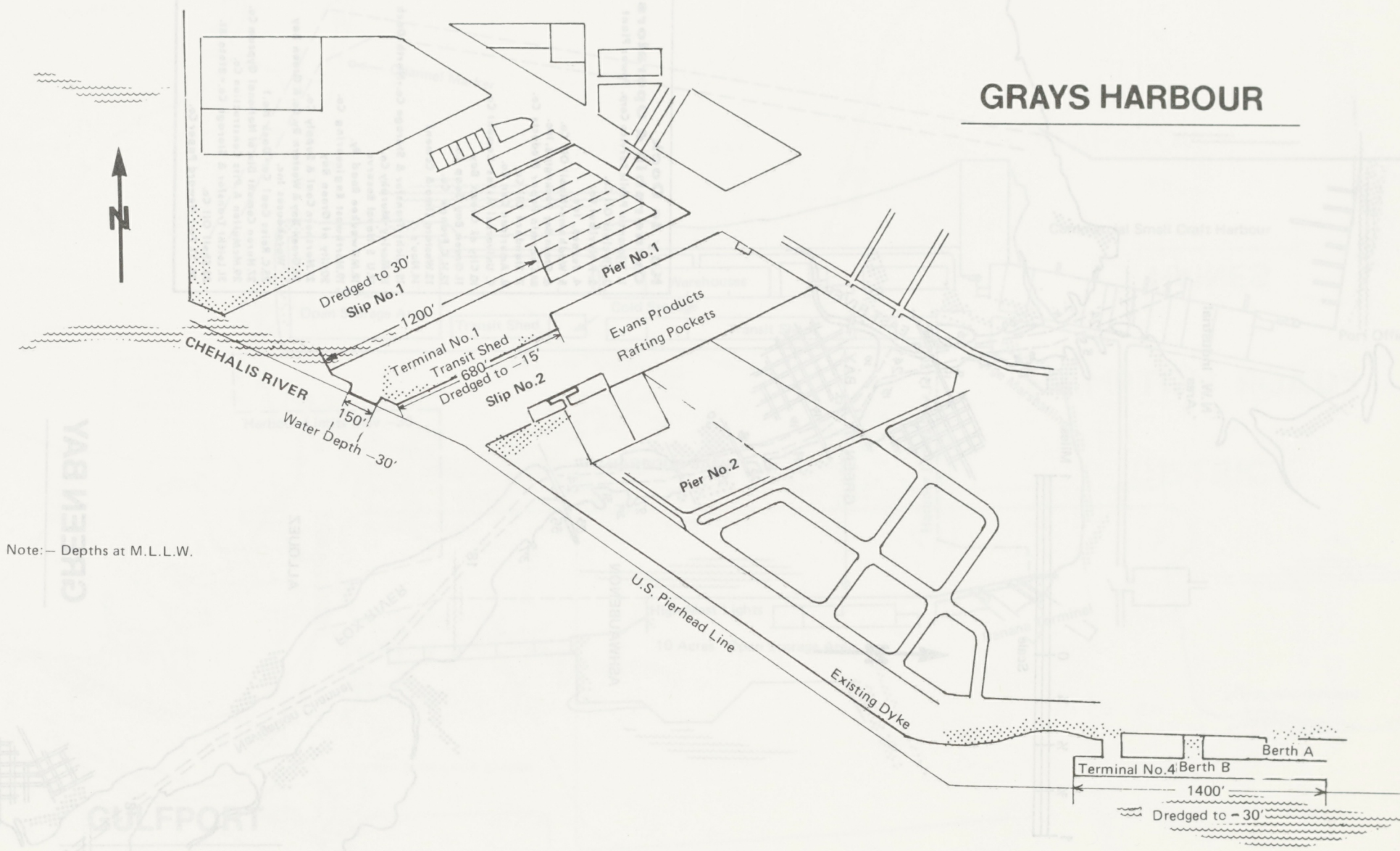
"Reproduced by kind permission of the Port Authority".







# GRAYS HARBOUR

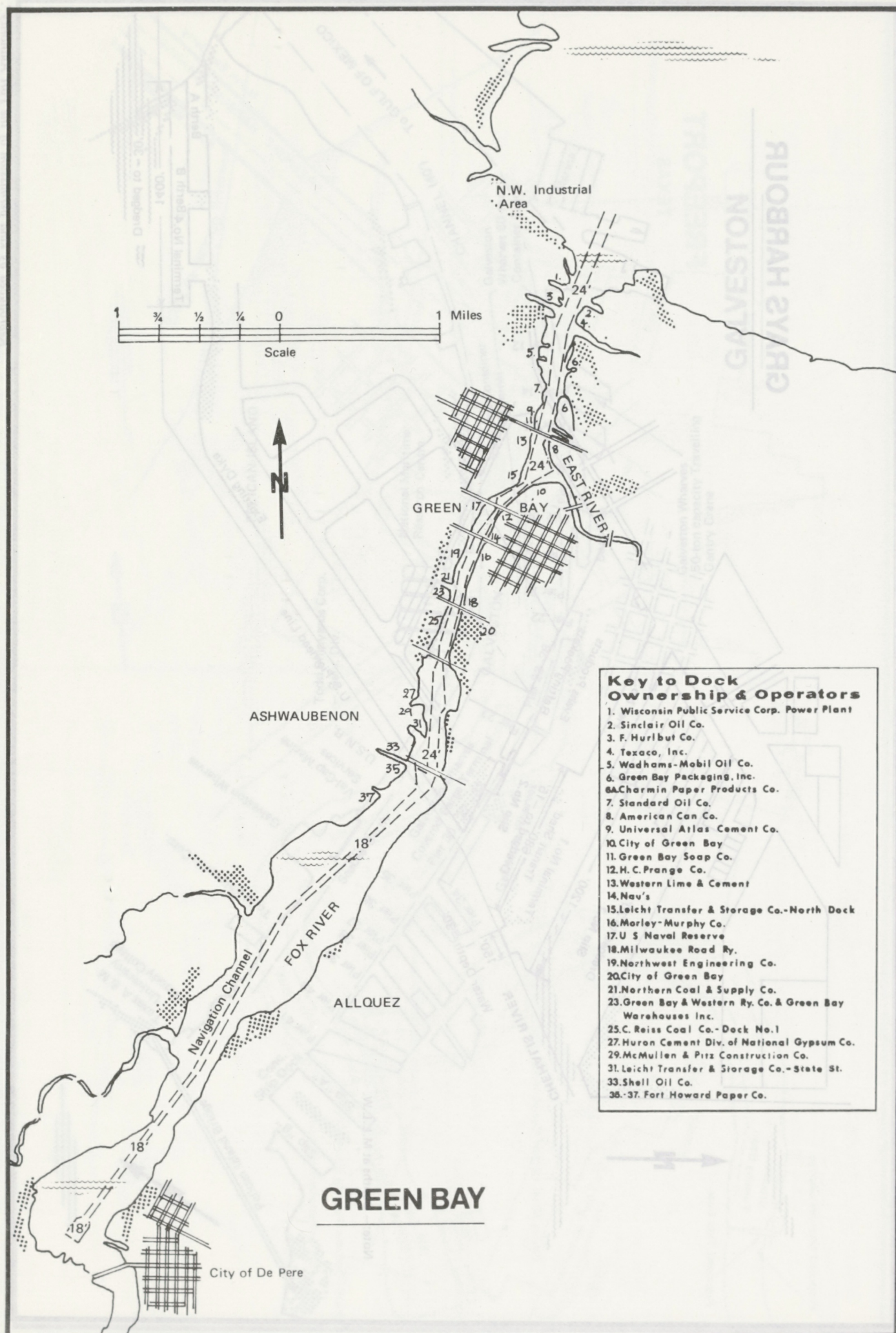


Note:— Depths at M.L.L.W.

0 200 400 FEET  
SCALE

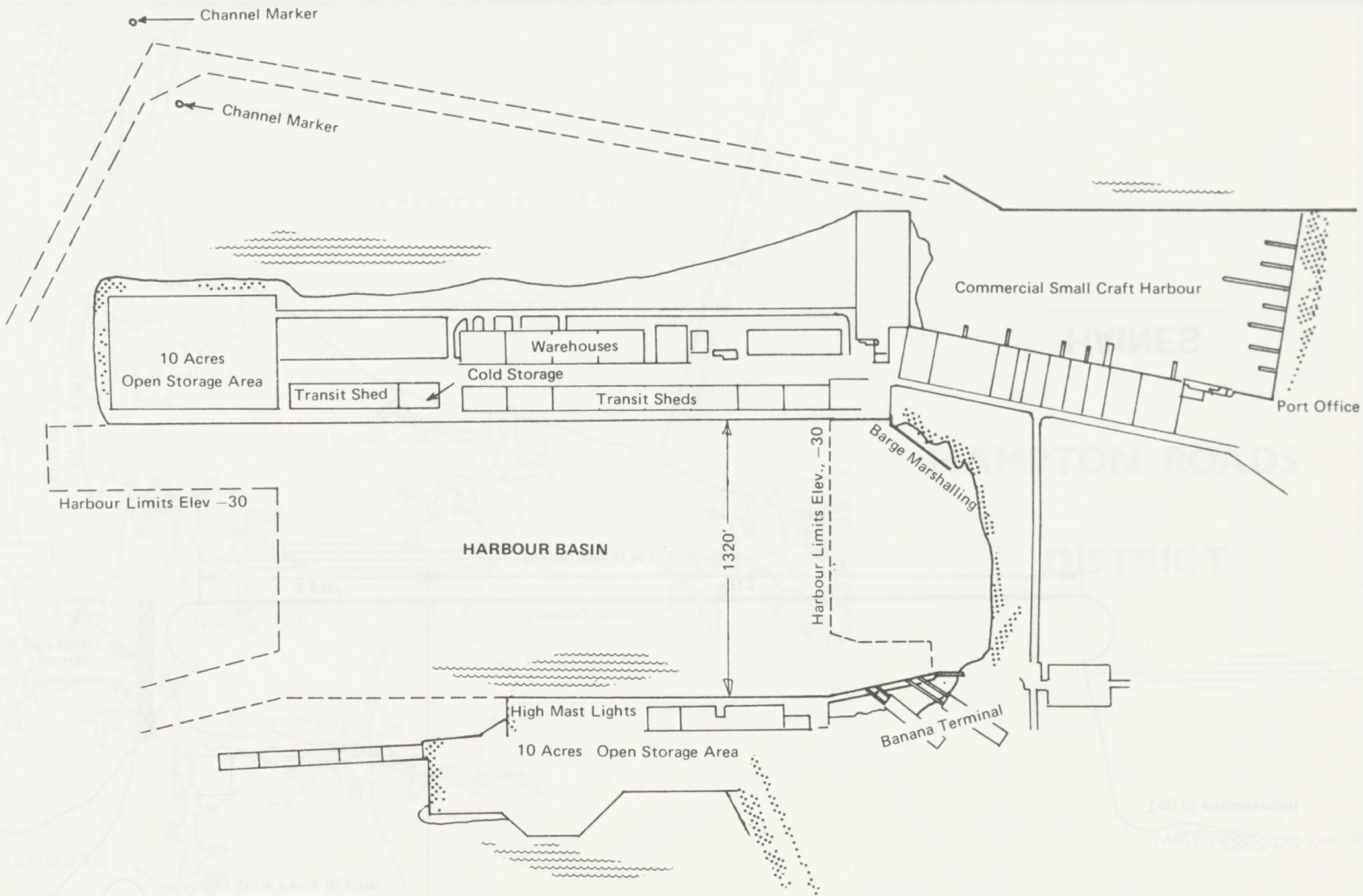
"Reproduced by kind permission of the Port Authority".





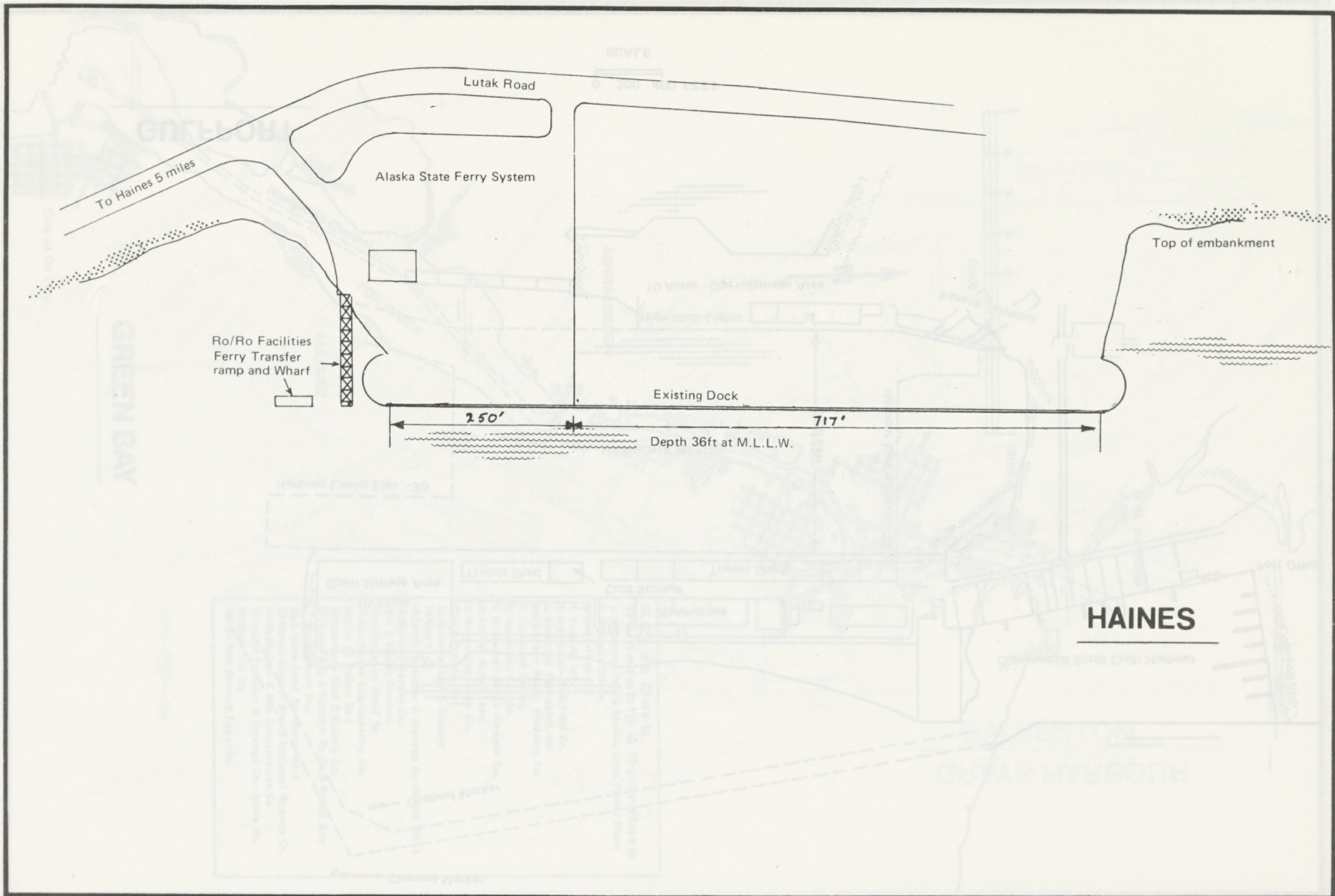


# GULFPORT

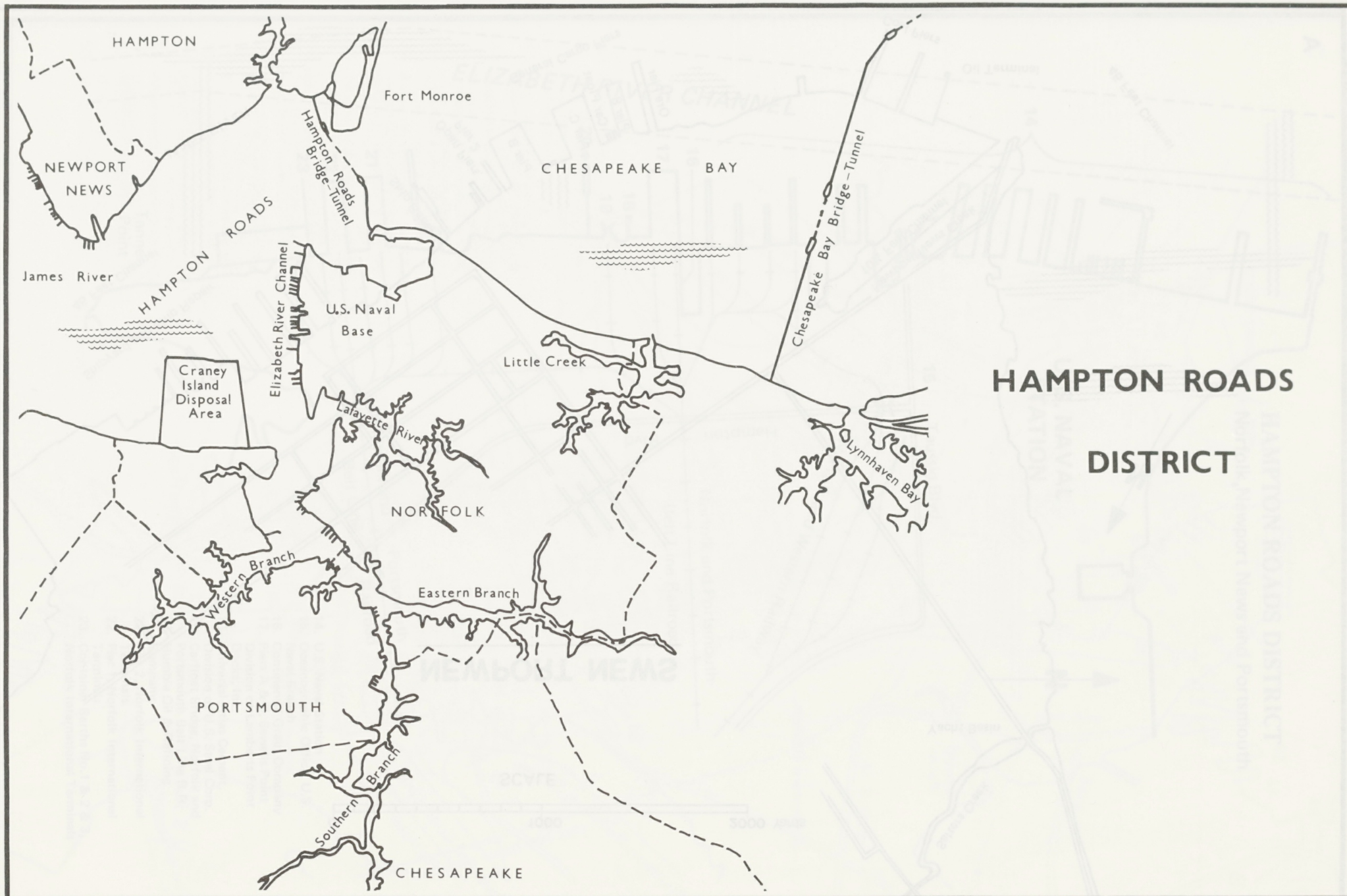


0 200 400 FEET  
SCALE





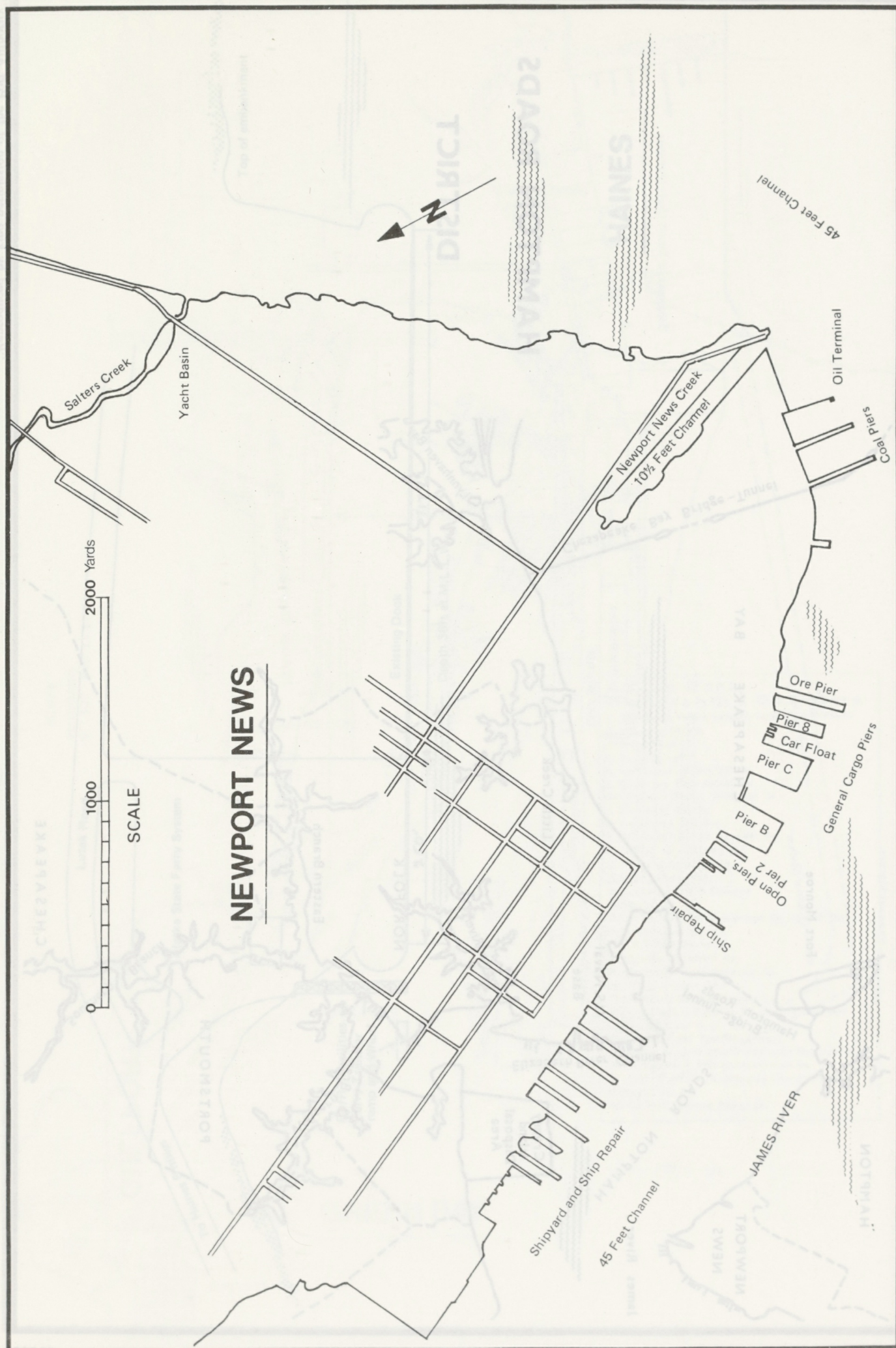




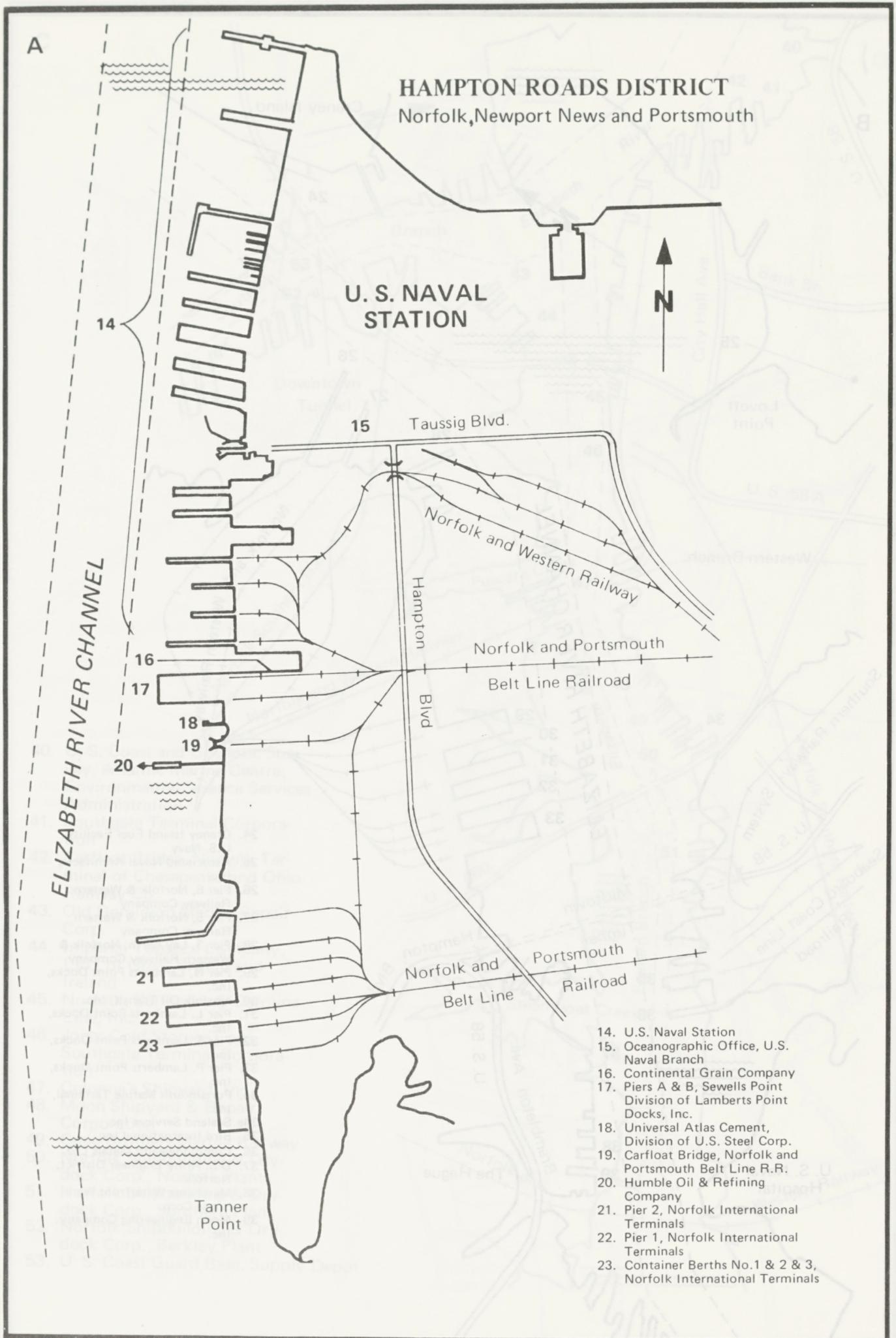
## HAMPTON ROADS DISTRICT

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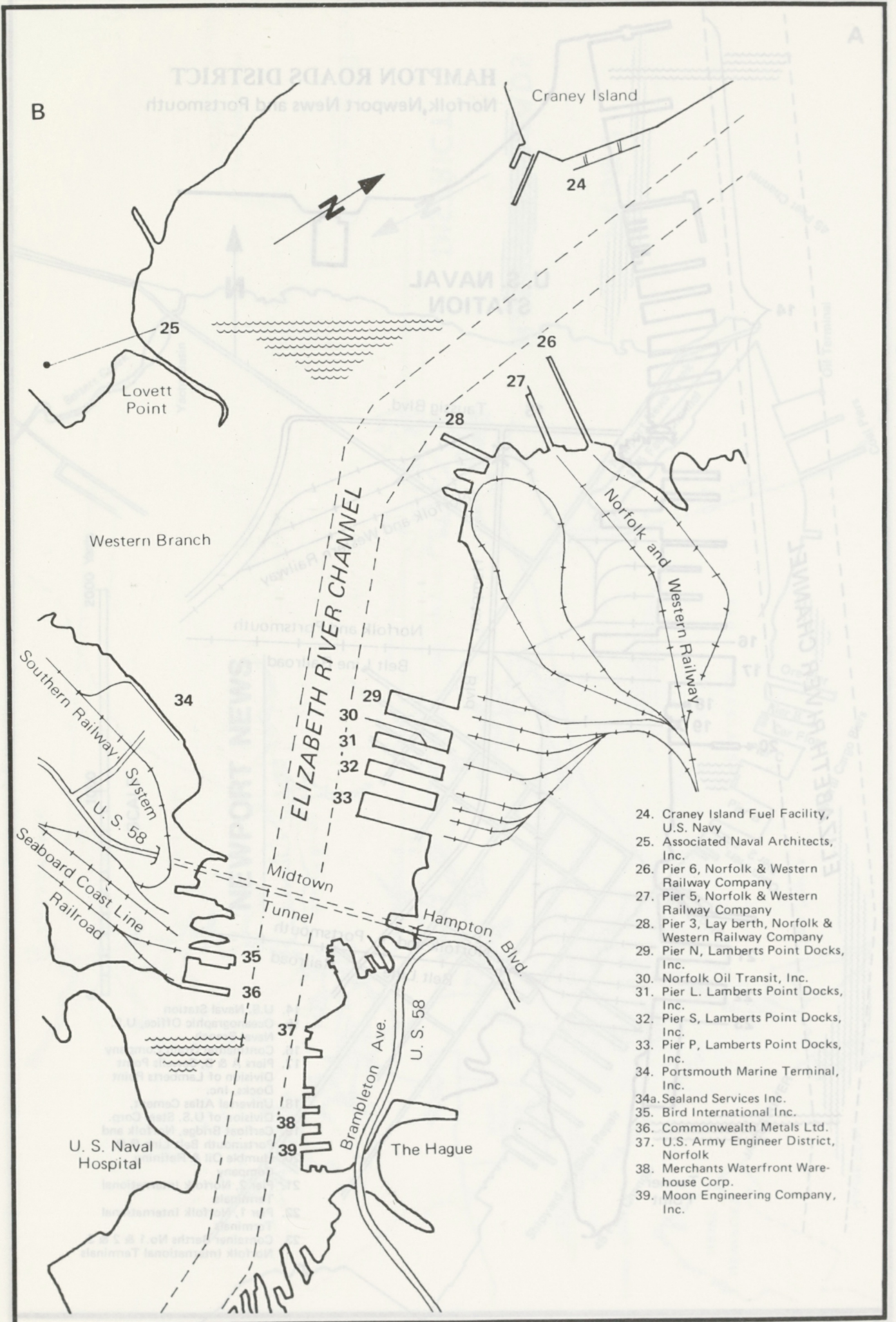






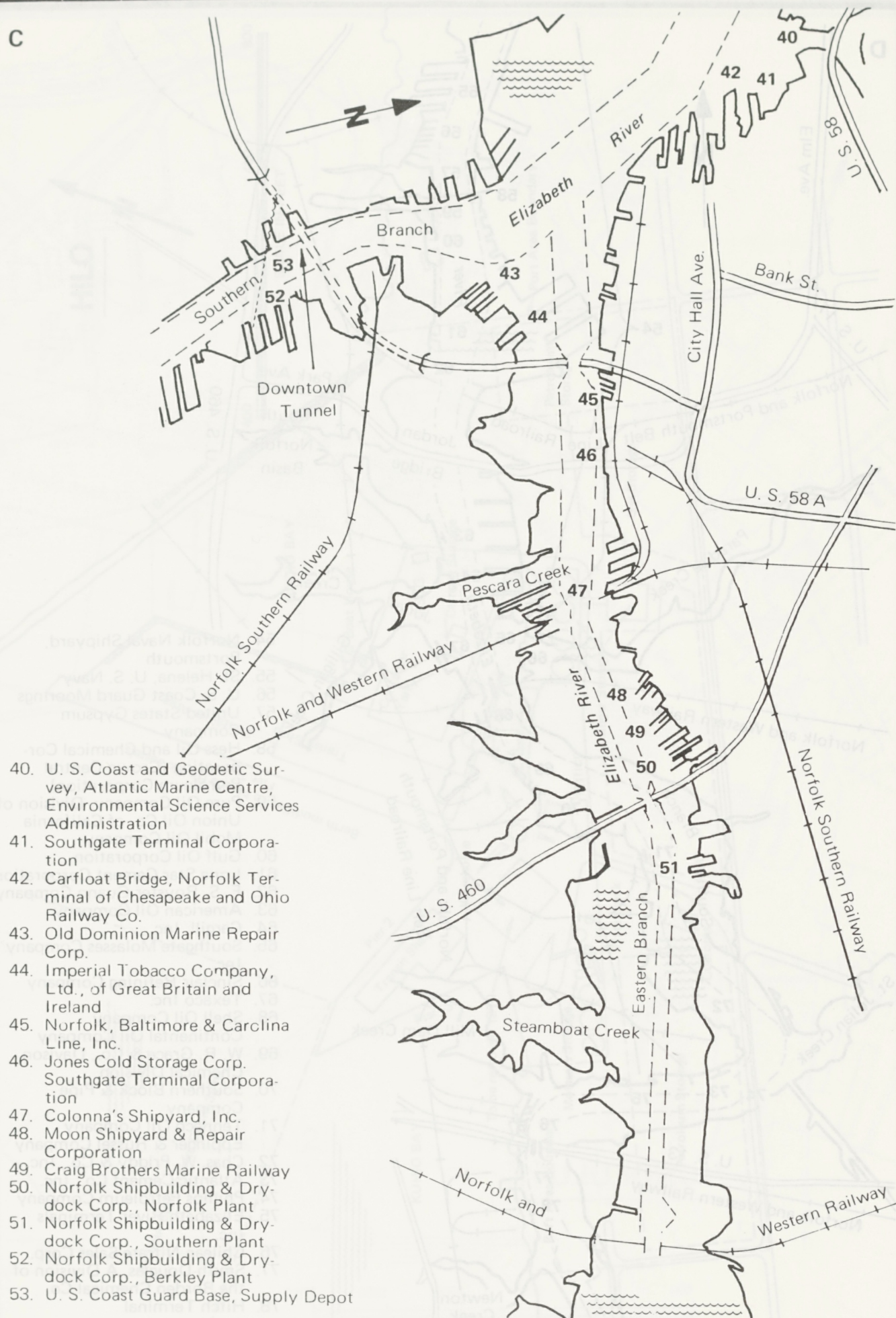




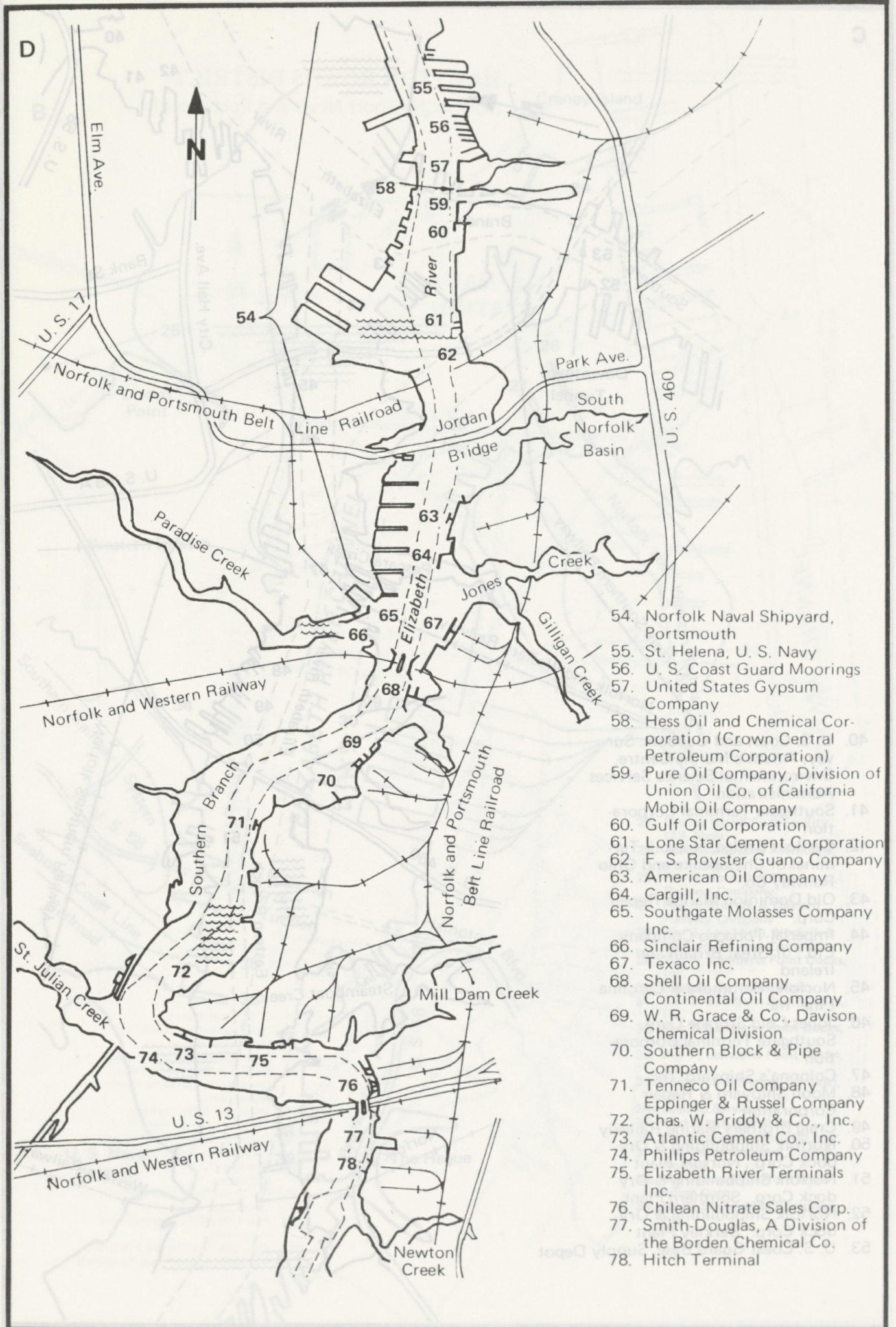




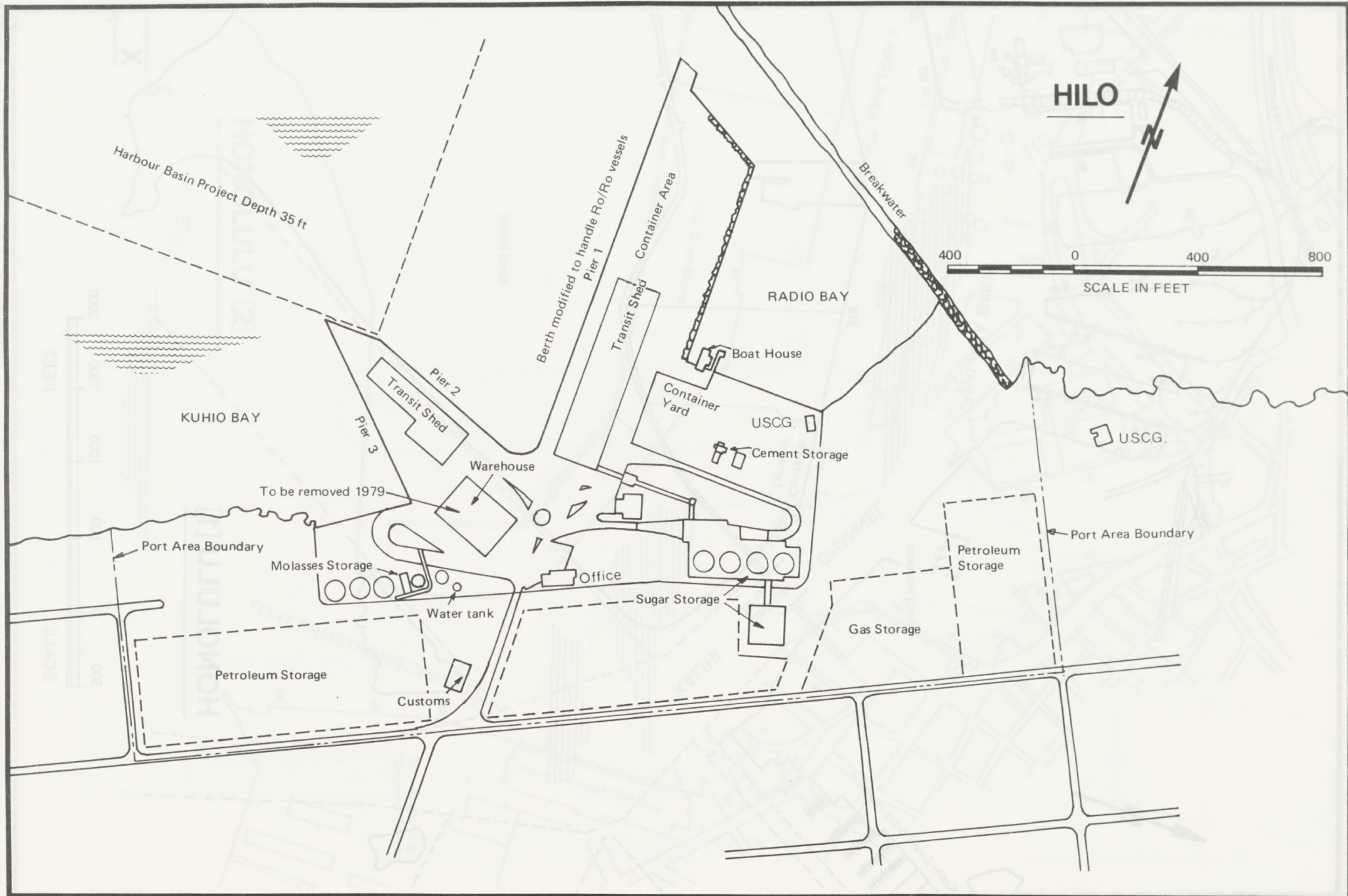
C





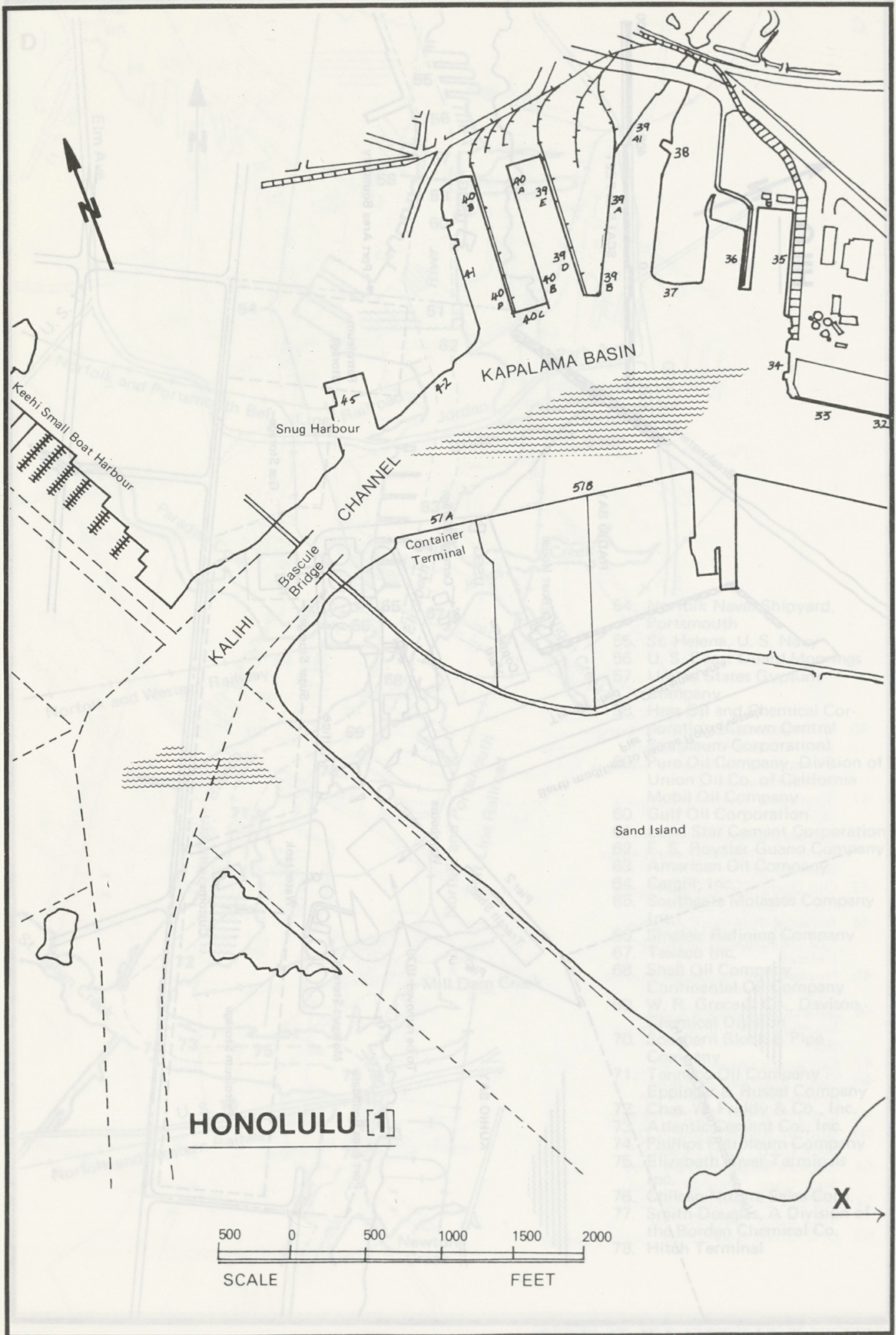




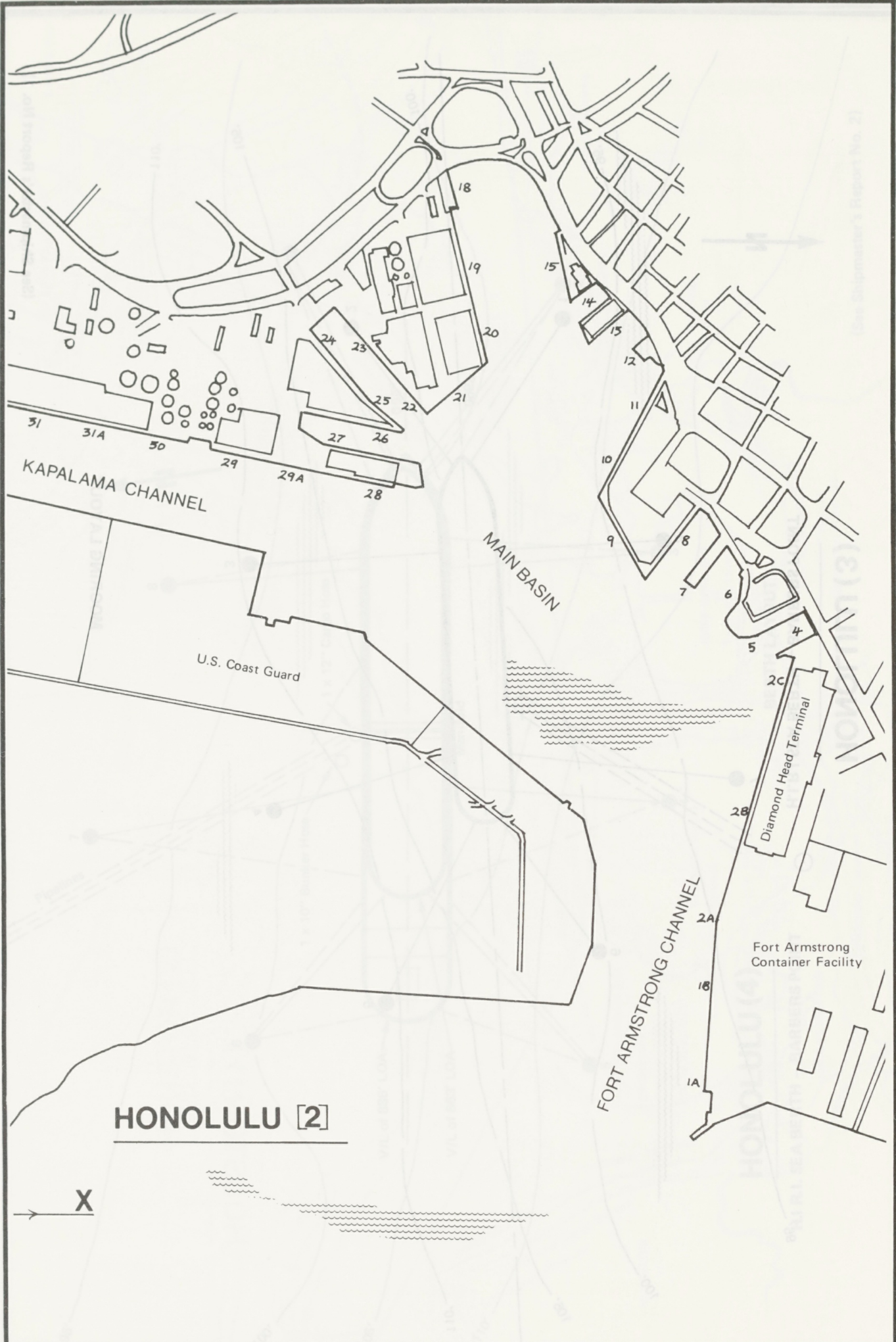


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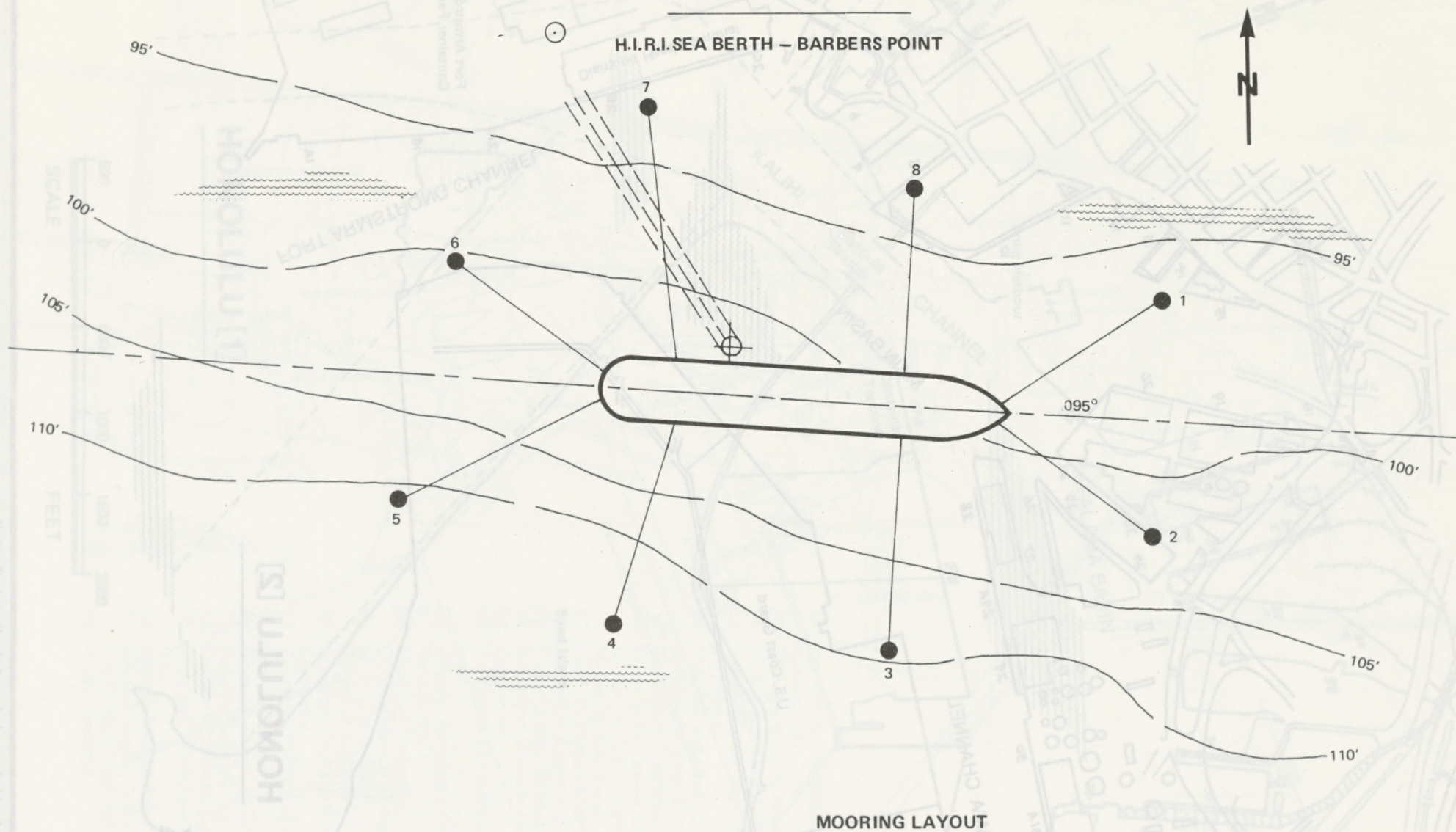




**HONOLULU [2]**

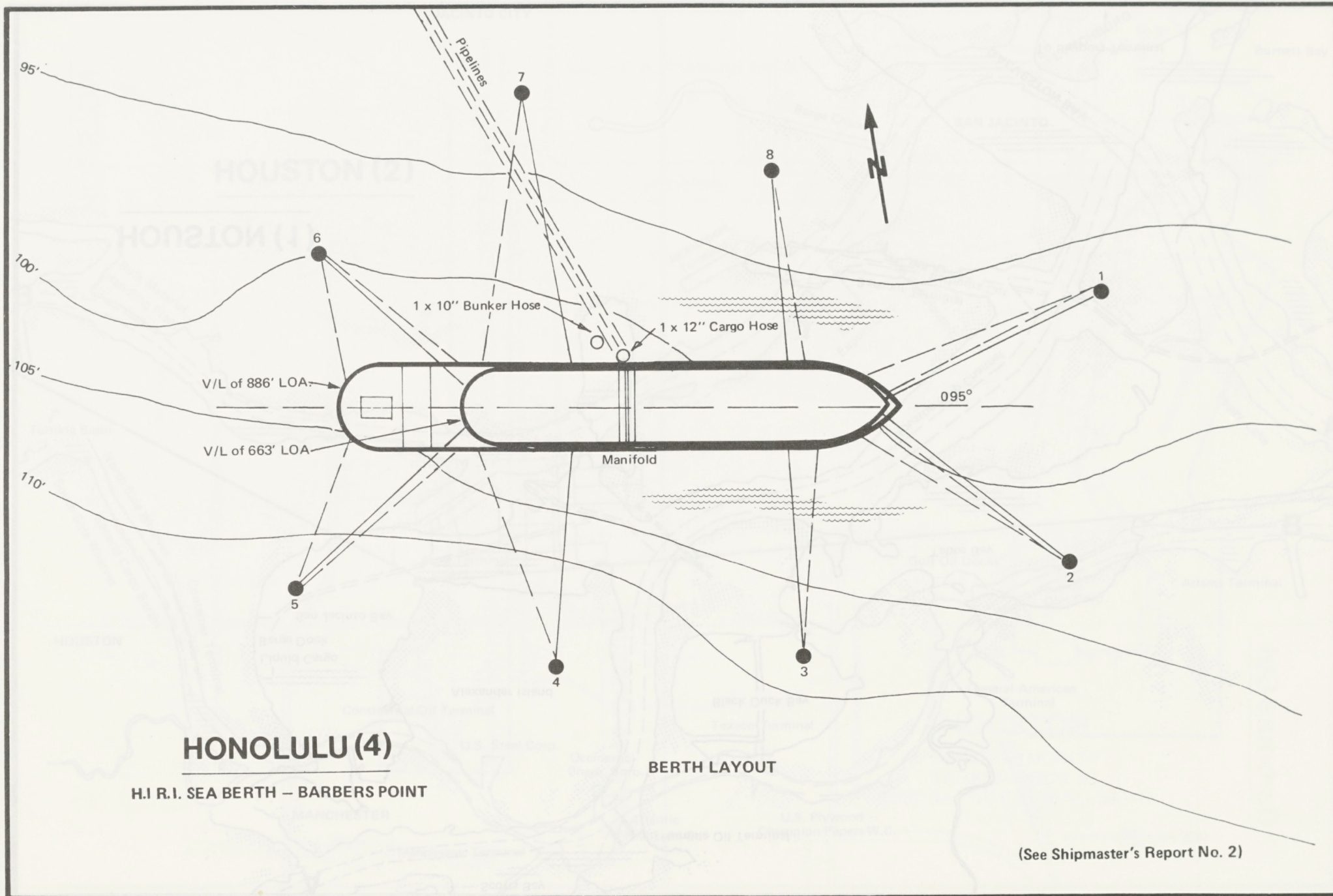


## H.I.R.I.SEA BERTH – BARBERS POINT



(See Shipmaster's Report No. 1)





## HONOLULU (4)

H.I.R.I. SEA BERTH - BARBERS POINT

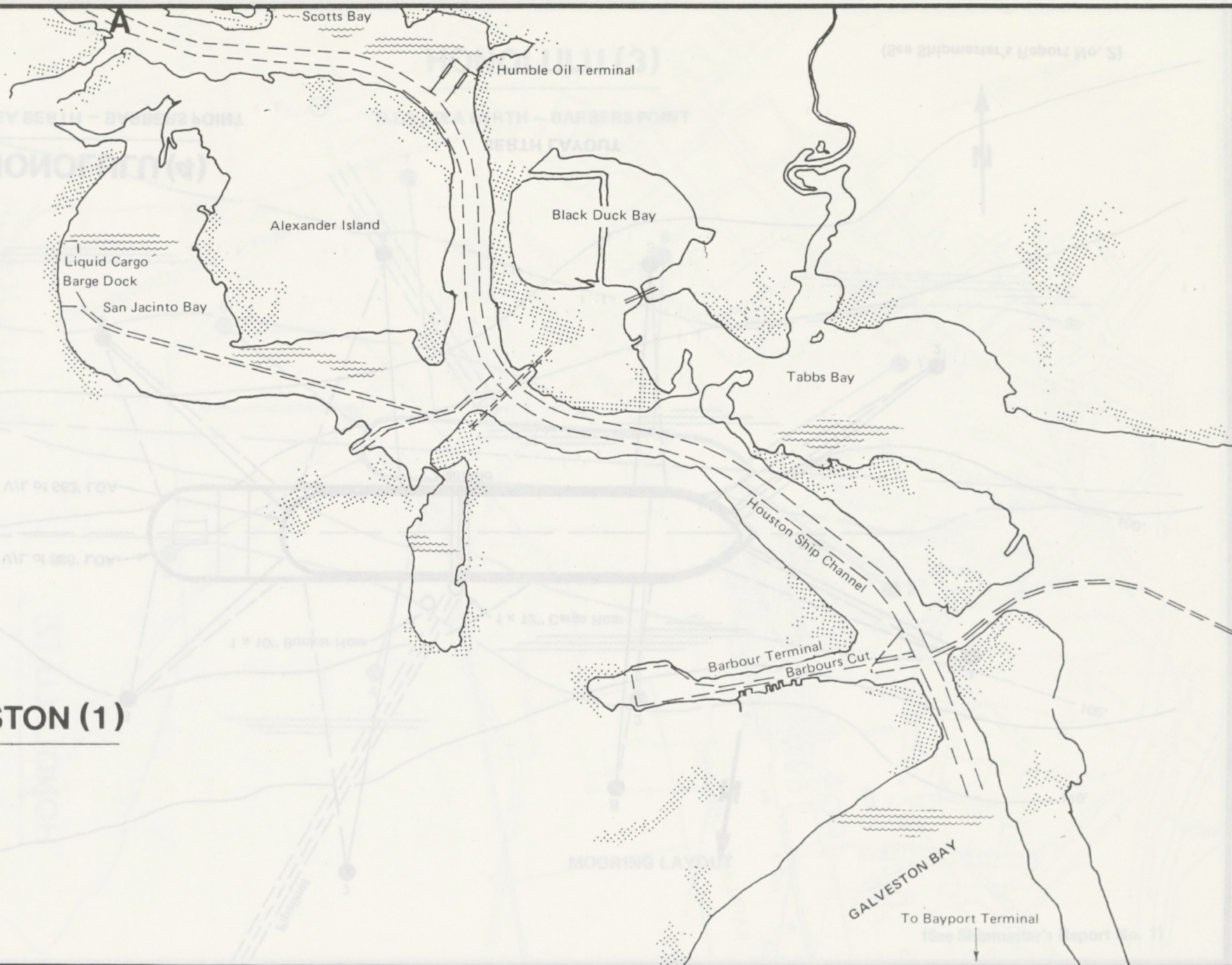
BERTH LAYOUT

(See Shipmaster's Report No. 2)

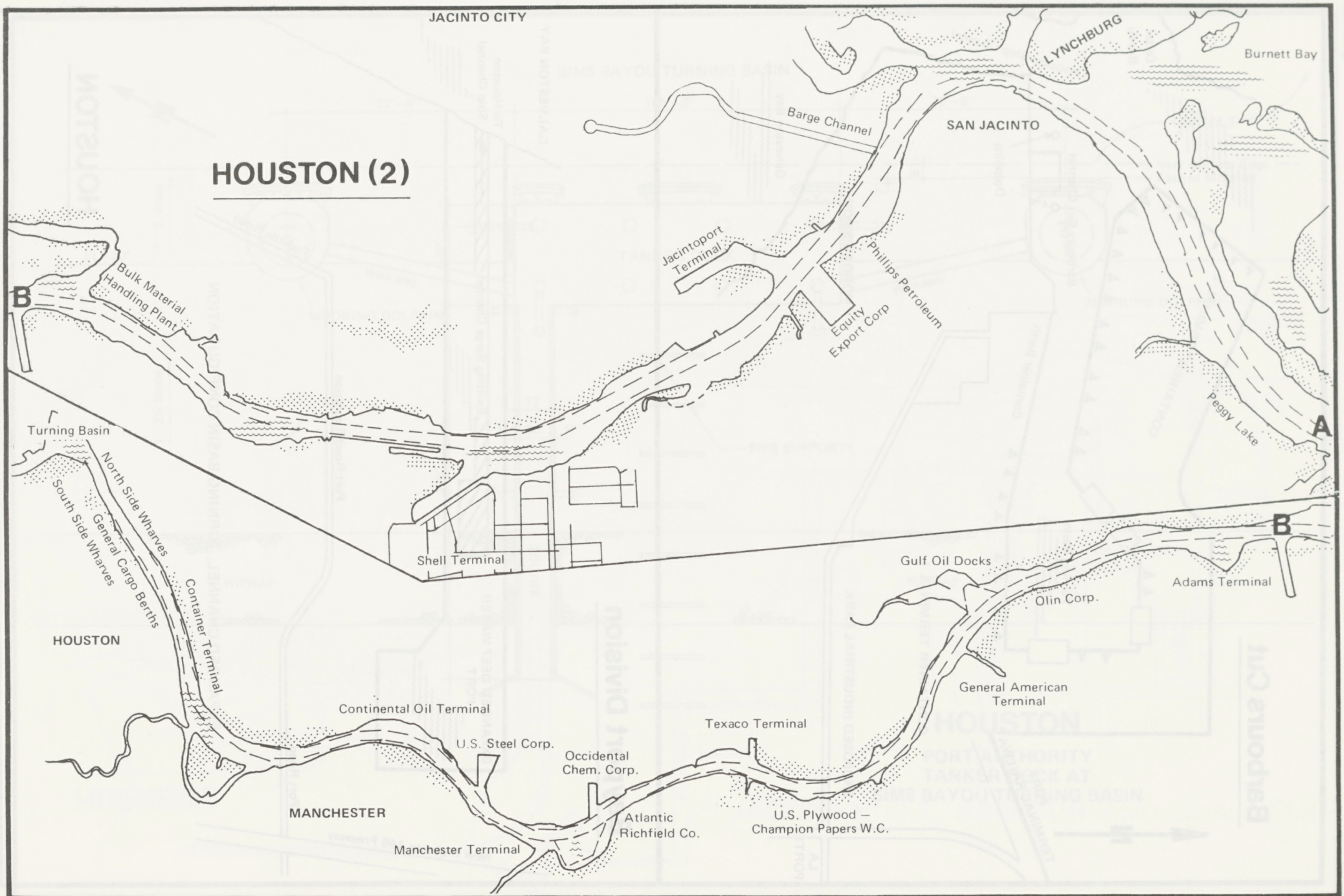
"Reproduced by kind permission of the Port Authority".



# HOUSTON (1)





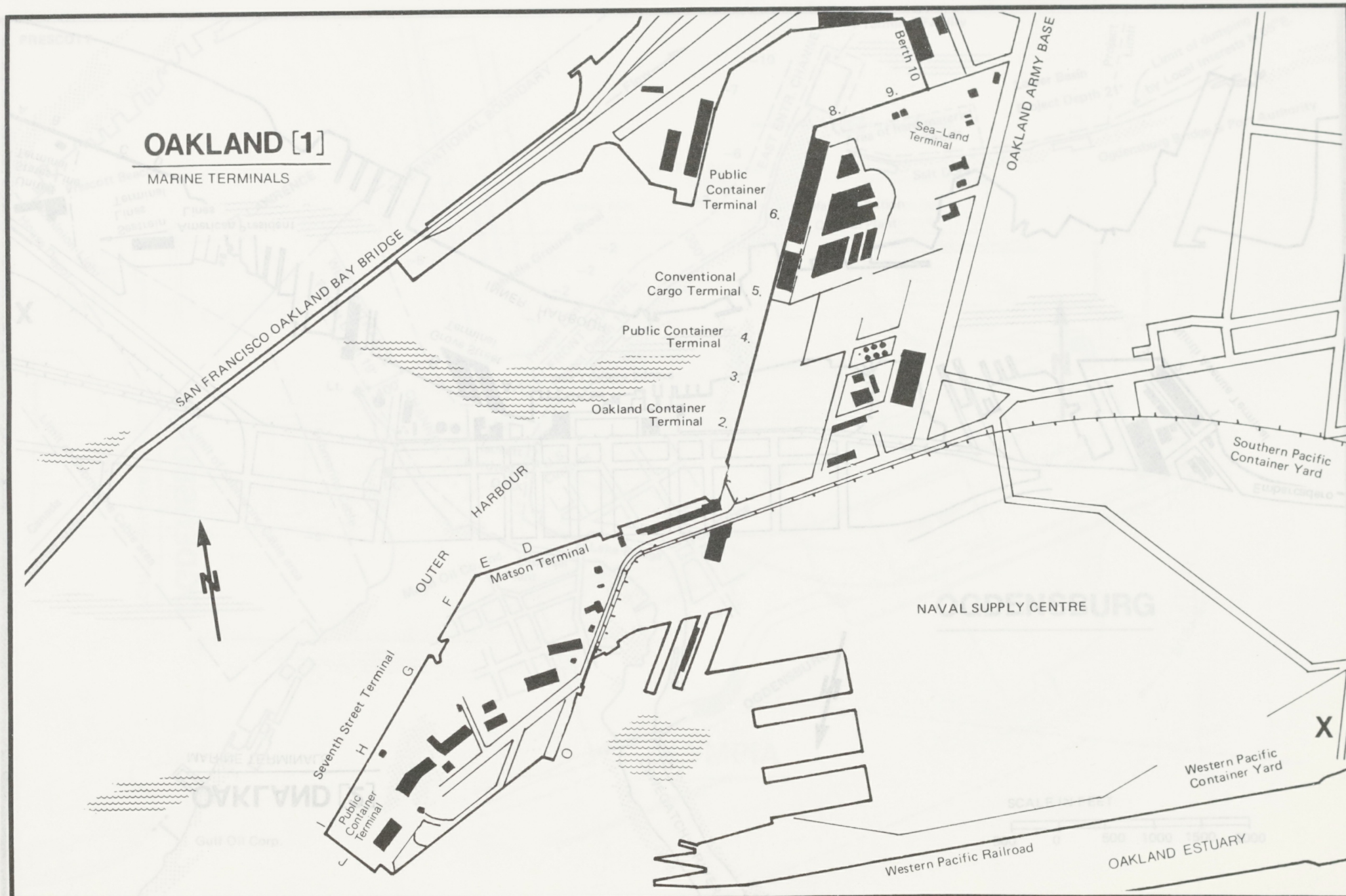


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# OAKLAND [1]

## MARINE TERMINALS

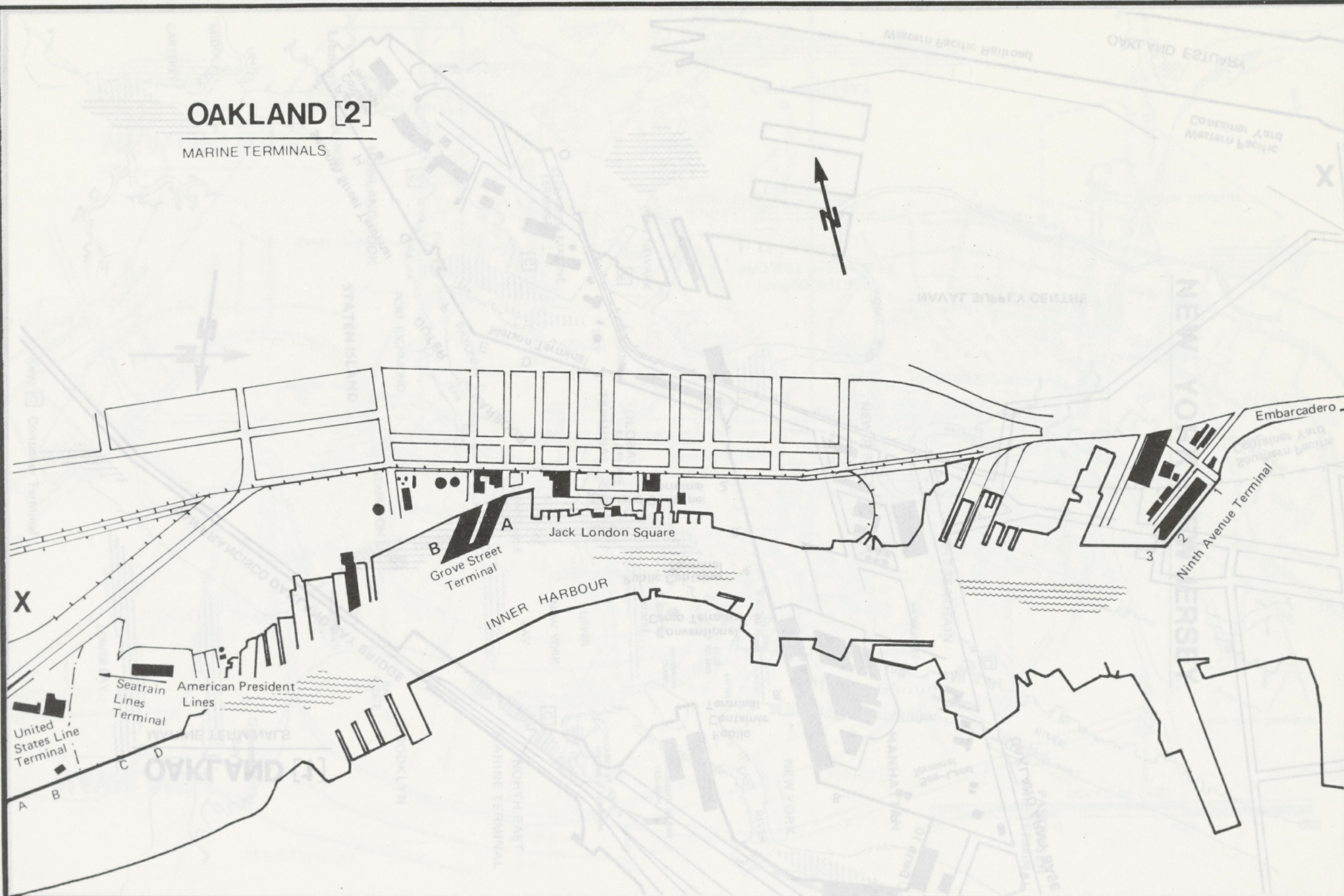


"Reproduced by kind permission of the Port Authority".

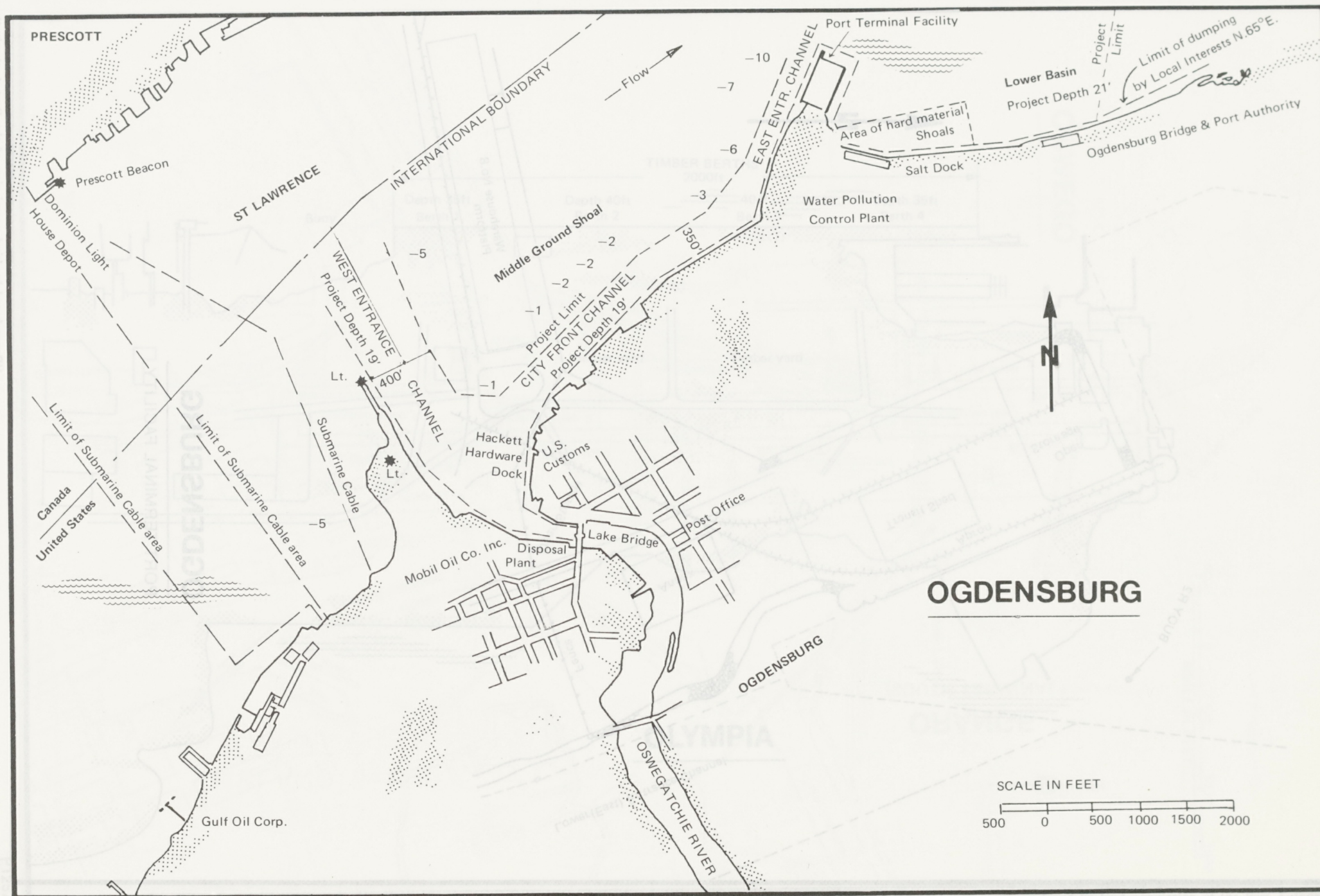


# OAKLAND [2]

MARINE TERMINALS



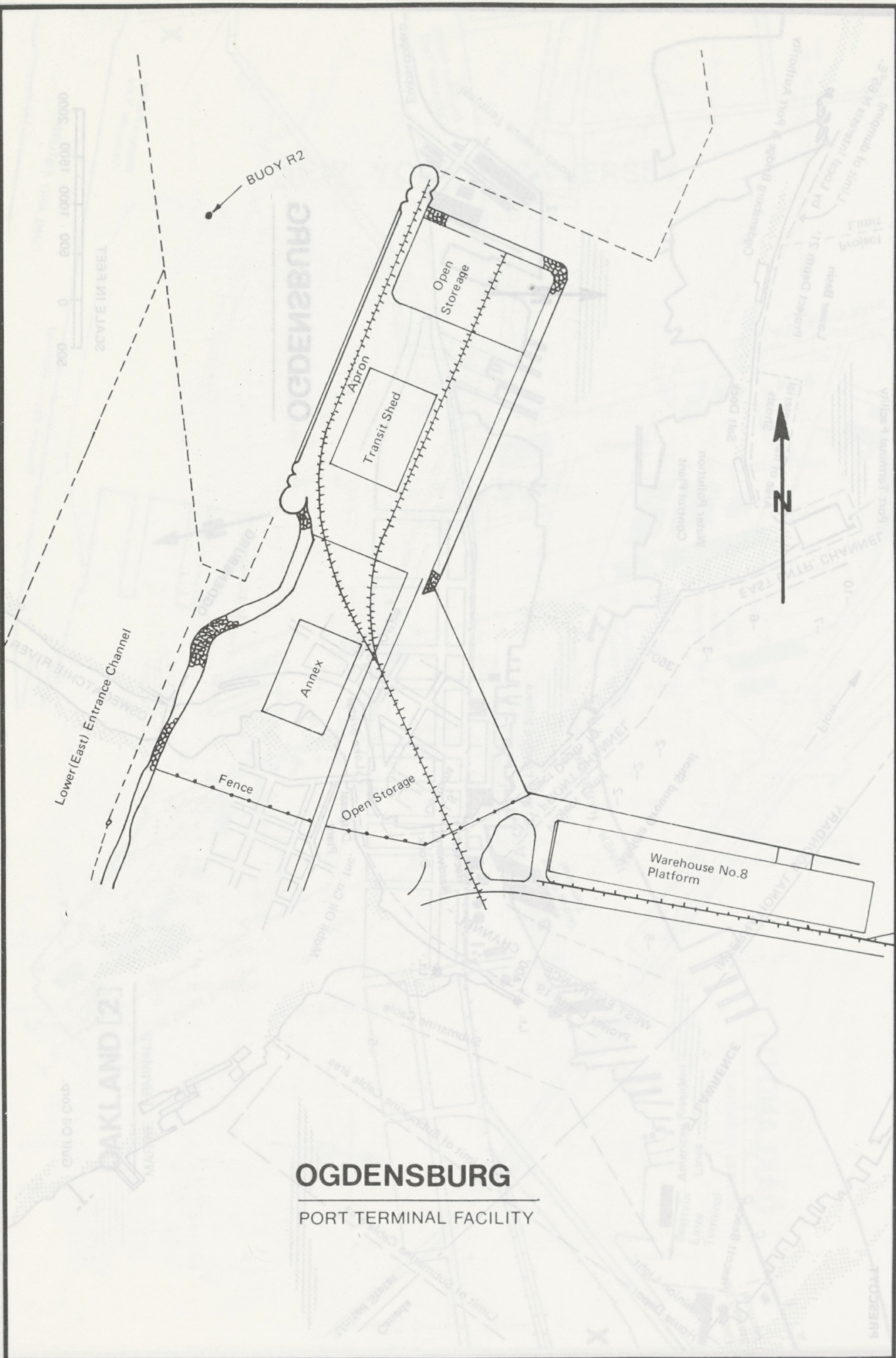




"Reproduced by kind permission of the Port Authority".



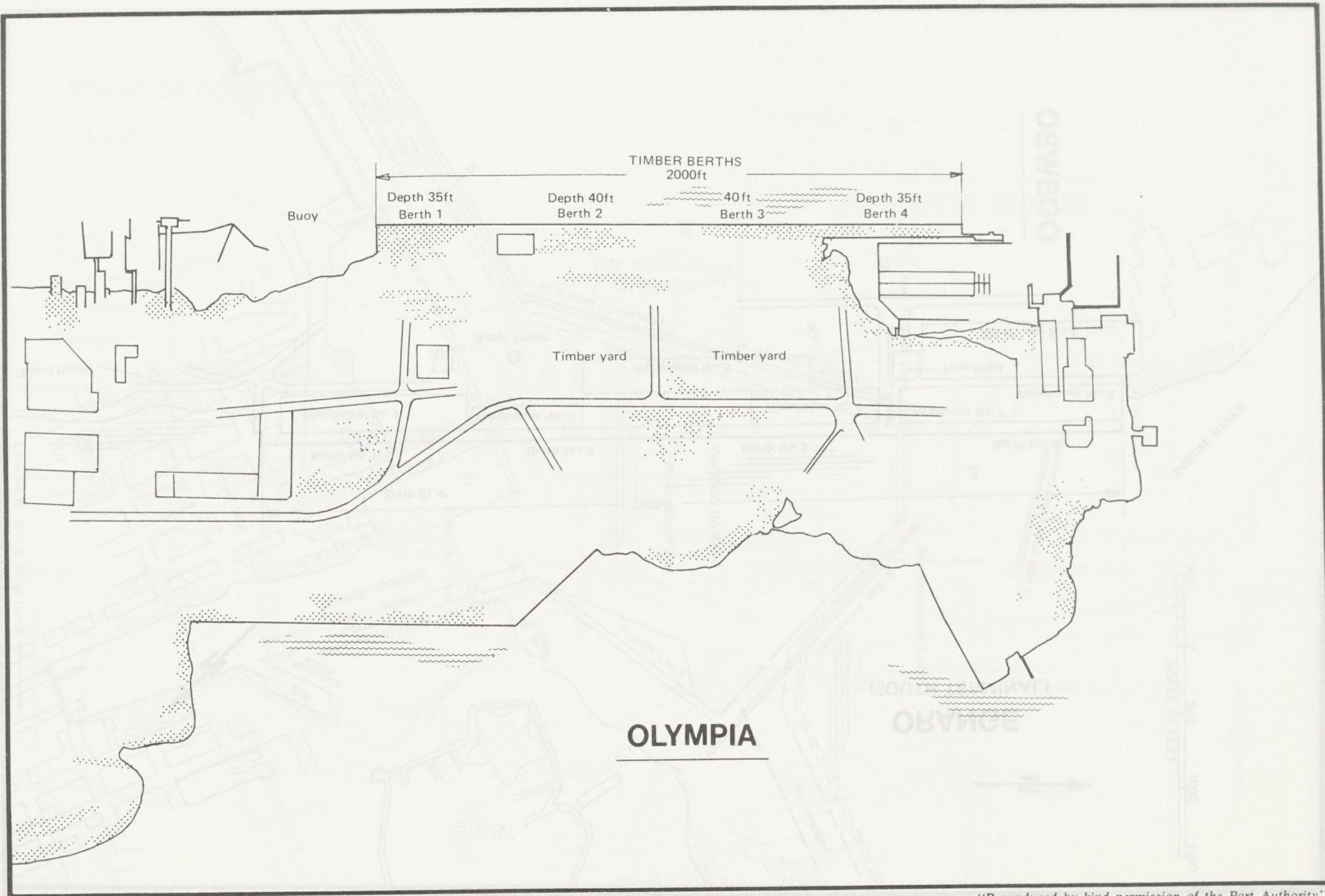
“Reproduced by kind permission of the Port Authority”.



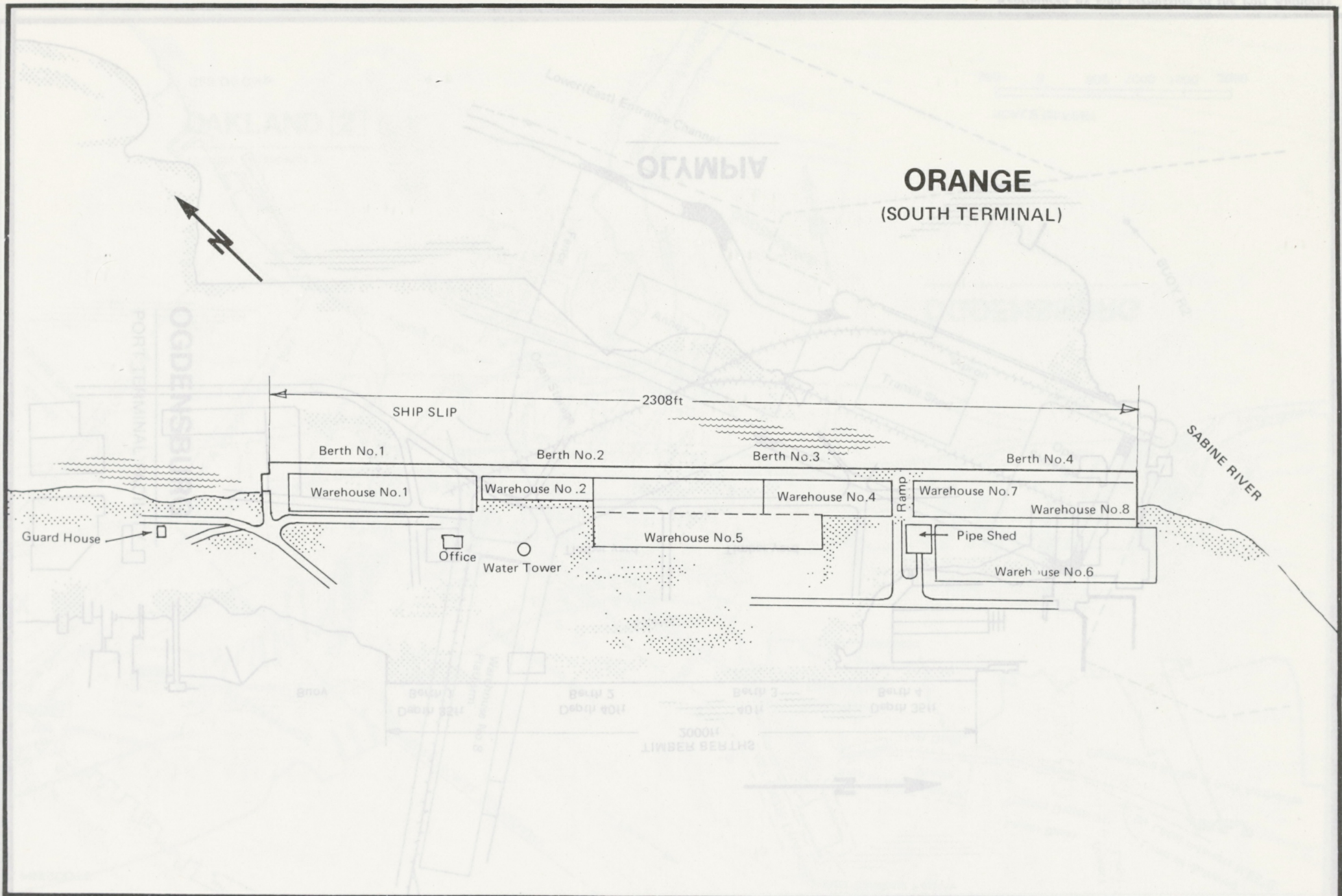
# OGDENSBURG

PORT TERMINAL FACILITY



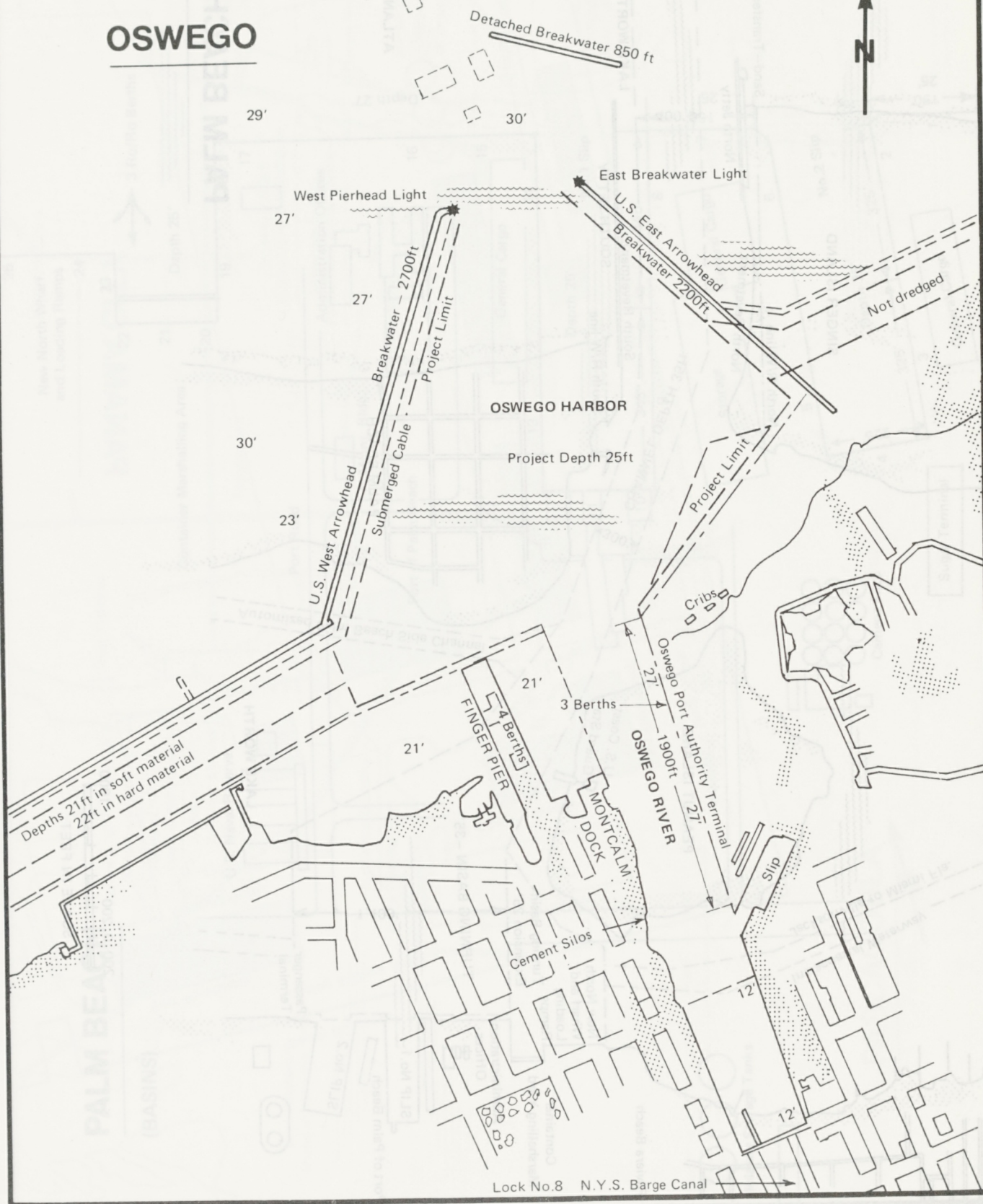
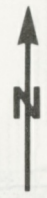
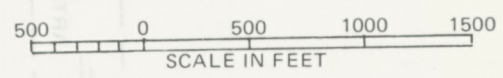




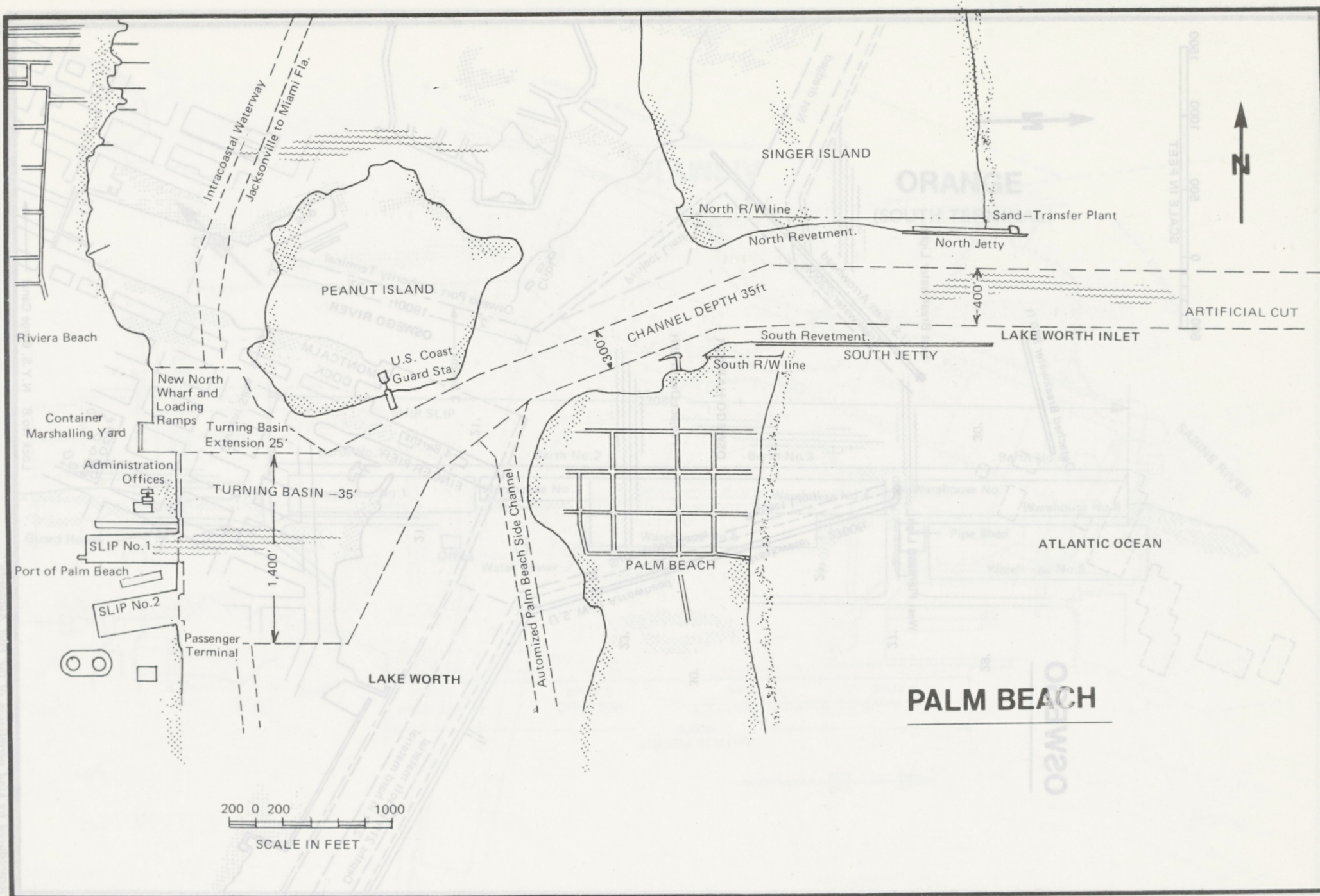




# OSWEGO



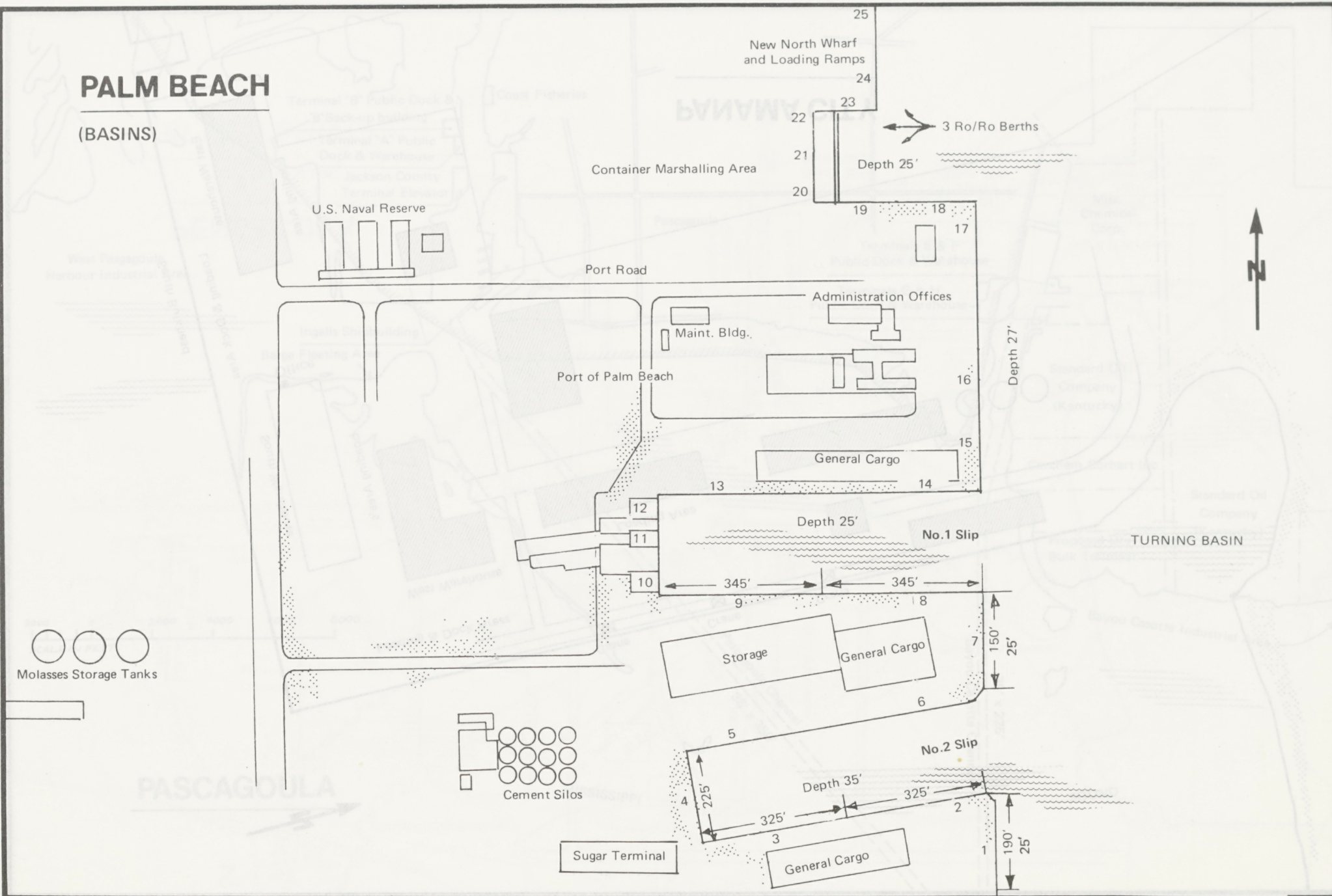






# PALM BEACH

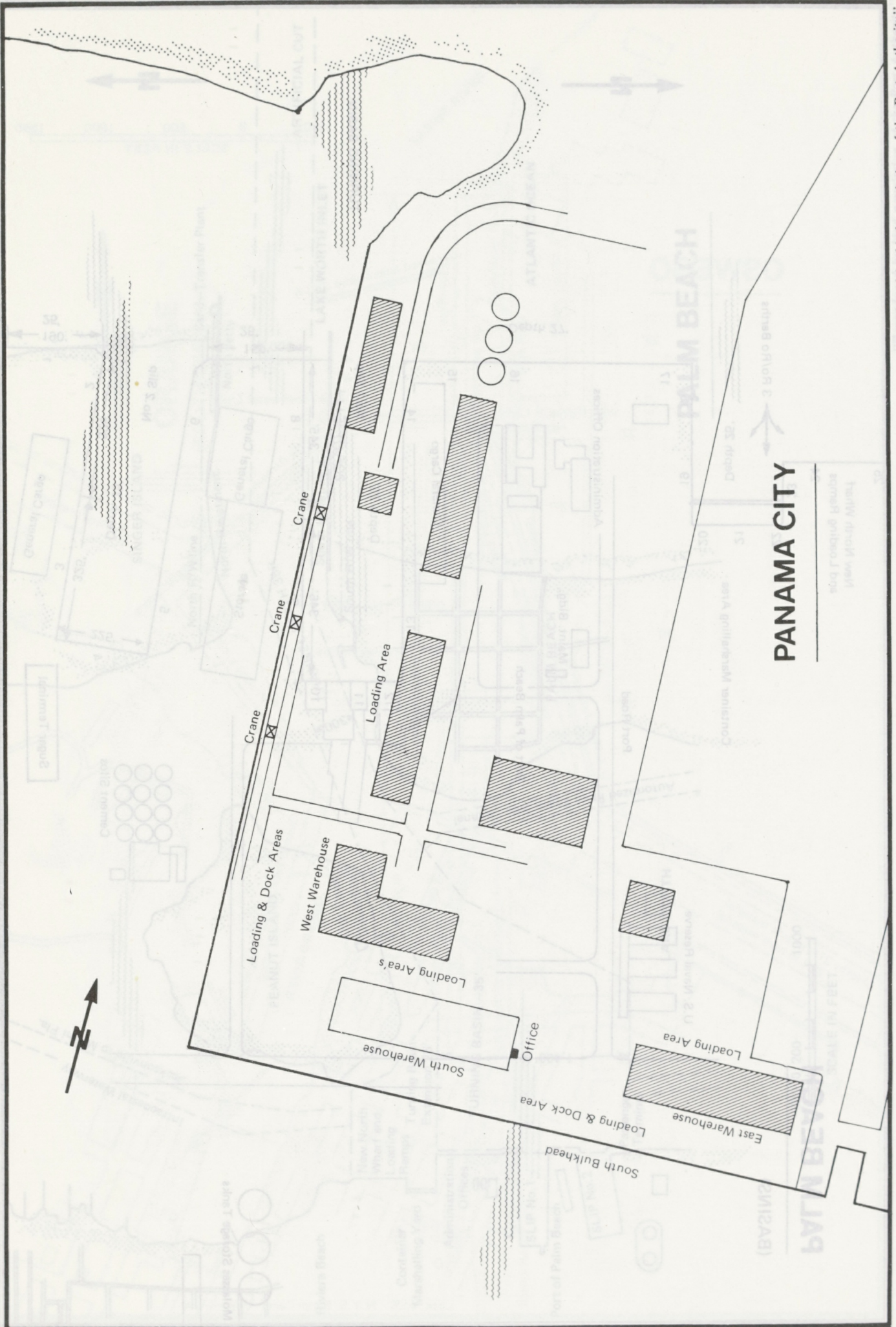
(BASINS)



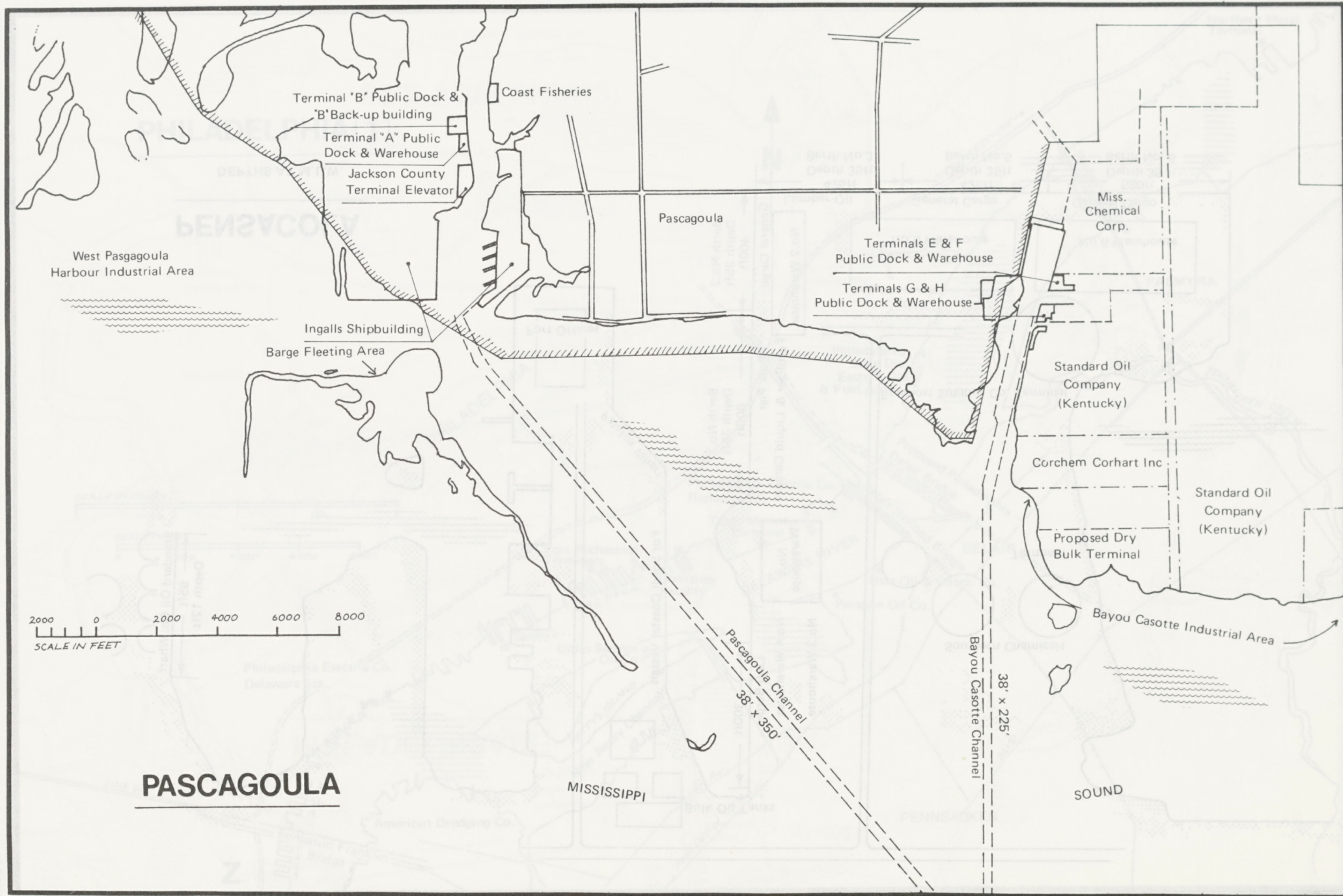
"Reproduced by kind permission of the Port Authority".



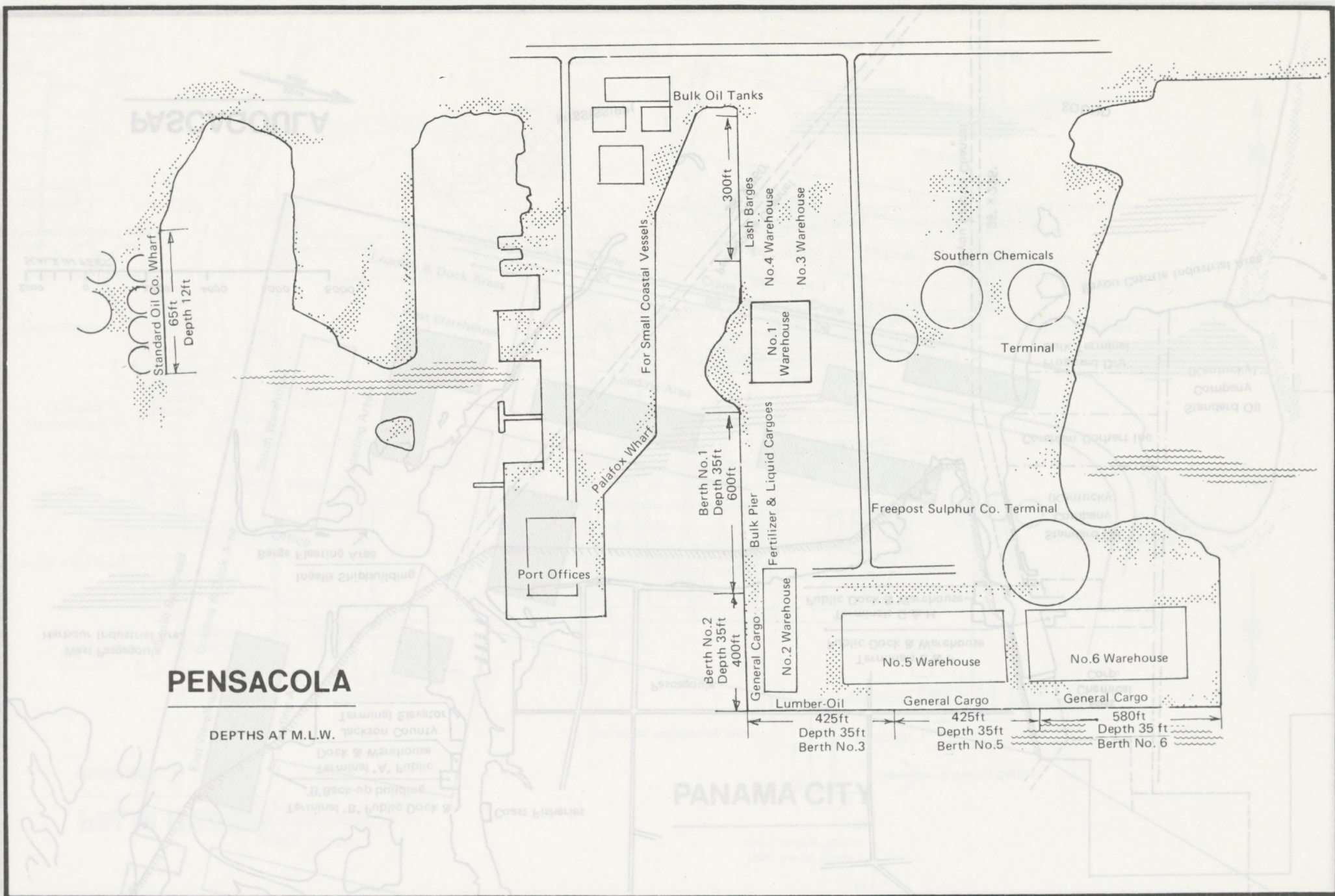
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# PHILADELPHIA [1]



SCALE IN MILES  
0 1/2 1 1 1/2 2

SCALE IN FEET  
0 2000 4000 6000 8000

PHILADELPHIA

PALMYRA

Northern Metal Terminal

Tacony-Palmyra Bridge

Rohm & Hess Co.

Philadelphia Coke Div.  
Eastern Gas & Fuel Assoc.

Philadelphia Electric Co.  
Richmond St.

Tiogo Marine Terminal

Port Richmond Terminals

Container Facility

DELAWARE RIVER

Proposed Philadelphia  
Delair Bridge

Delair R/Road Bridge

Hess Oil & Chem. Co.

Paragon Oil Co.

Philadelphia Electric Co.  
Delaware Sta.

Cities Service  
Oil Co.

PETTY'S ISLAND  
New Jersey Channel

American Dredging Co.

Benjamin Franklin Bridge

PENNSAUKEN

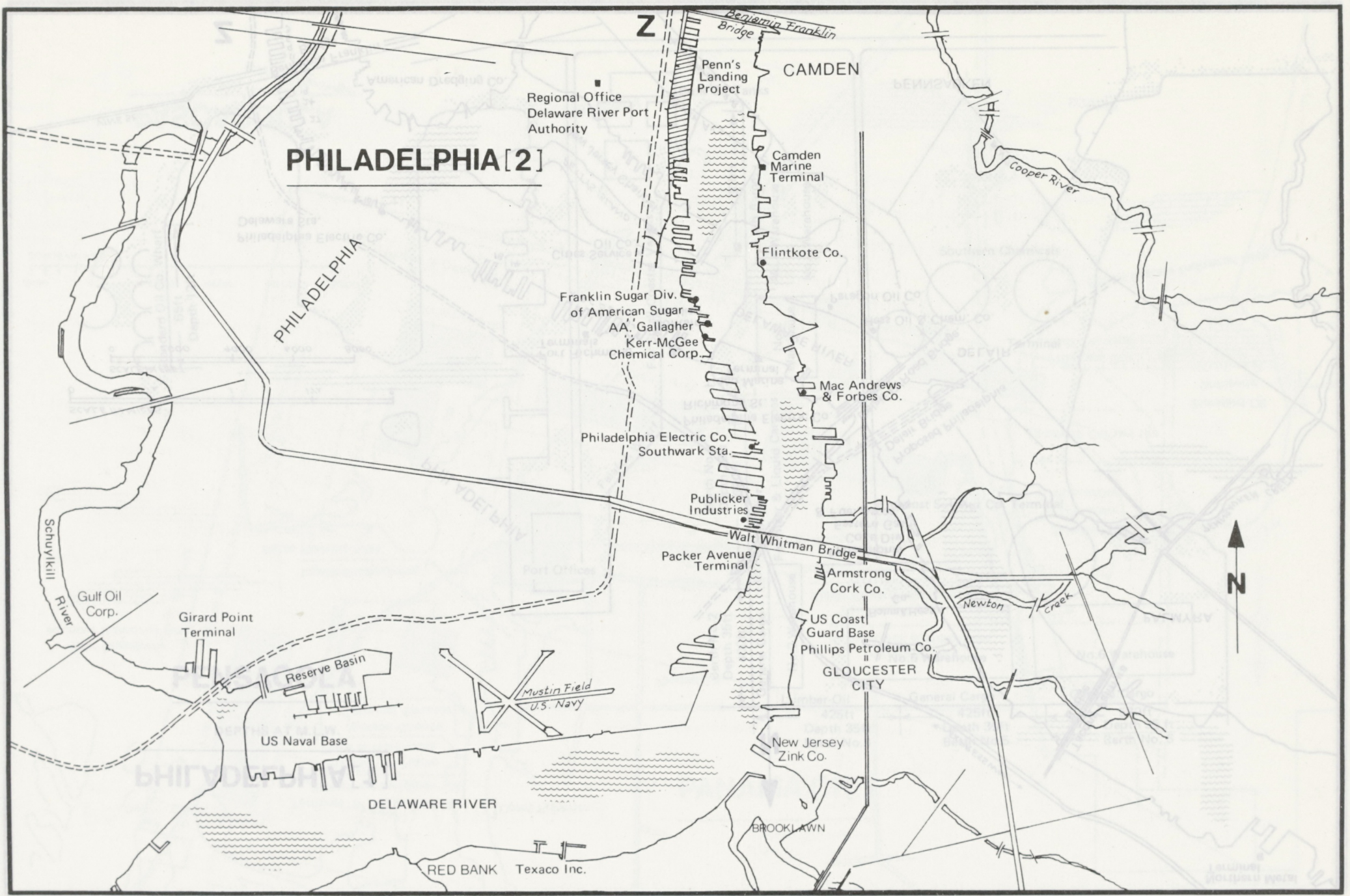
BLVD

River Av.  
Penn Central R.R.

Z

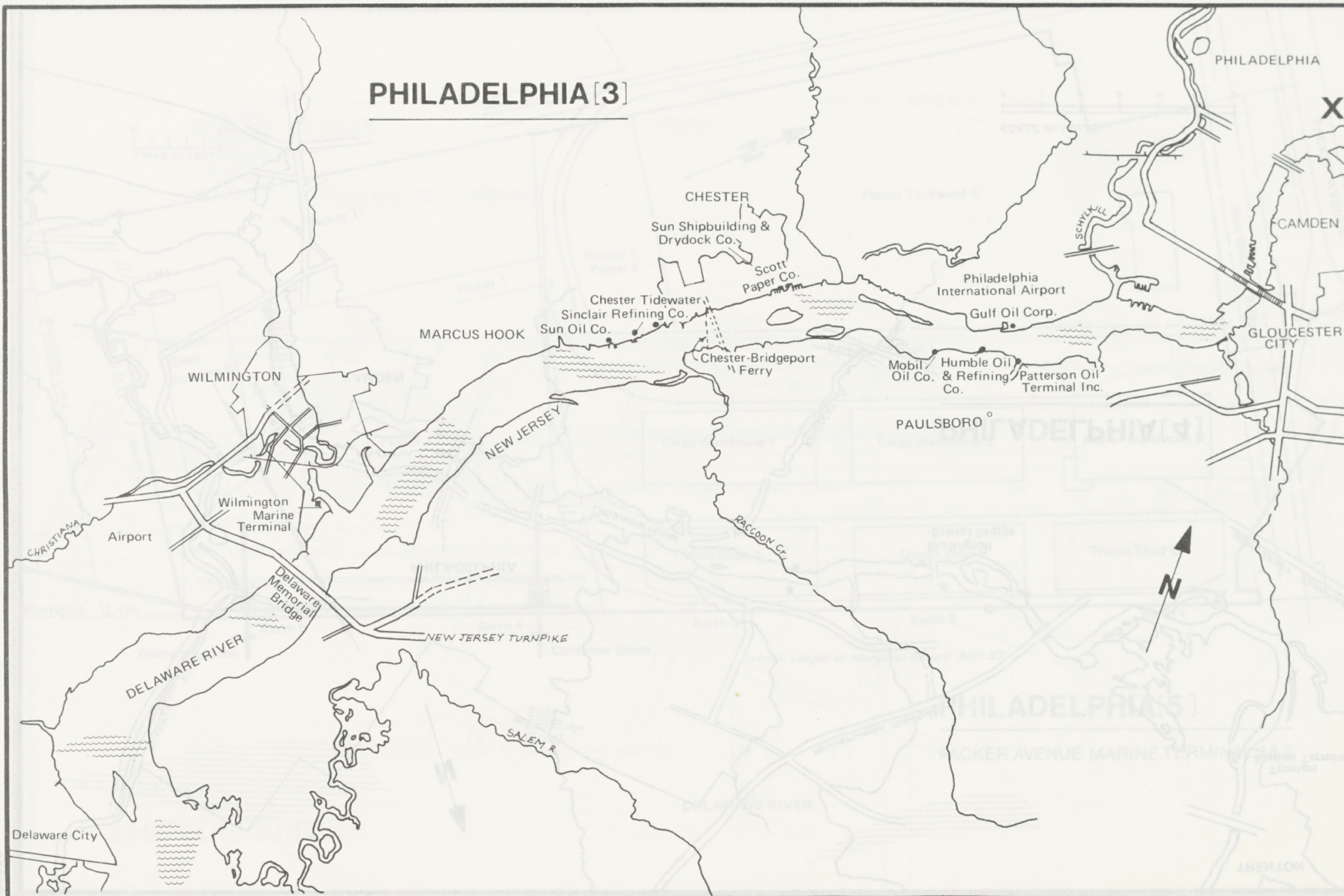
"Reproduced by kind permission of the Port Authority".







# PHILADELPHIA [3]



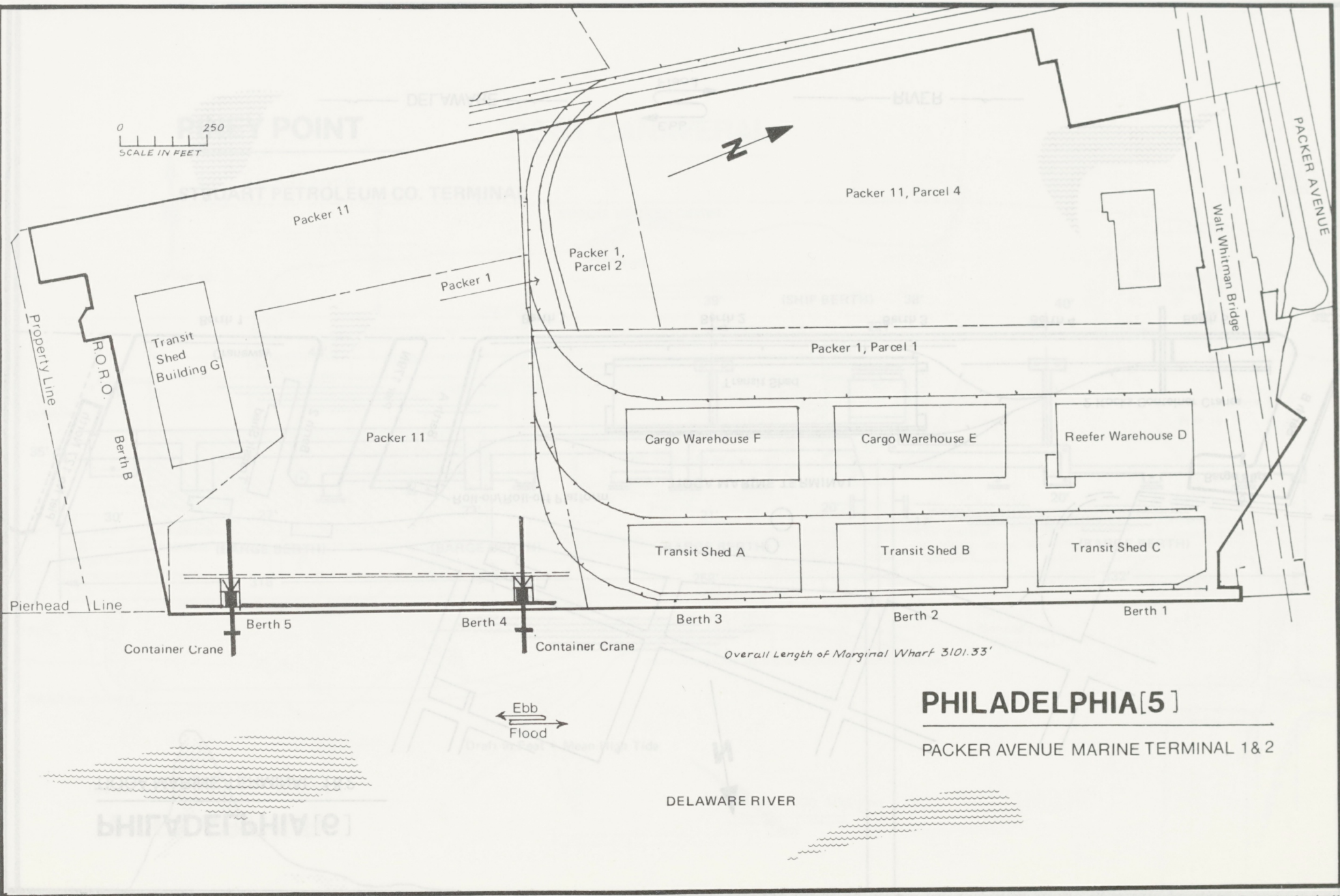
"Reproduced by kind permission of the Port Authority".







0 250  
SCALE IN FEET



## PHILADELPHIA[5]

PACKER AVENUE MARINE TERMINAL 1 & 2

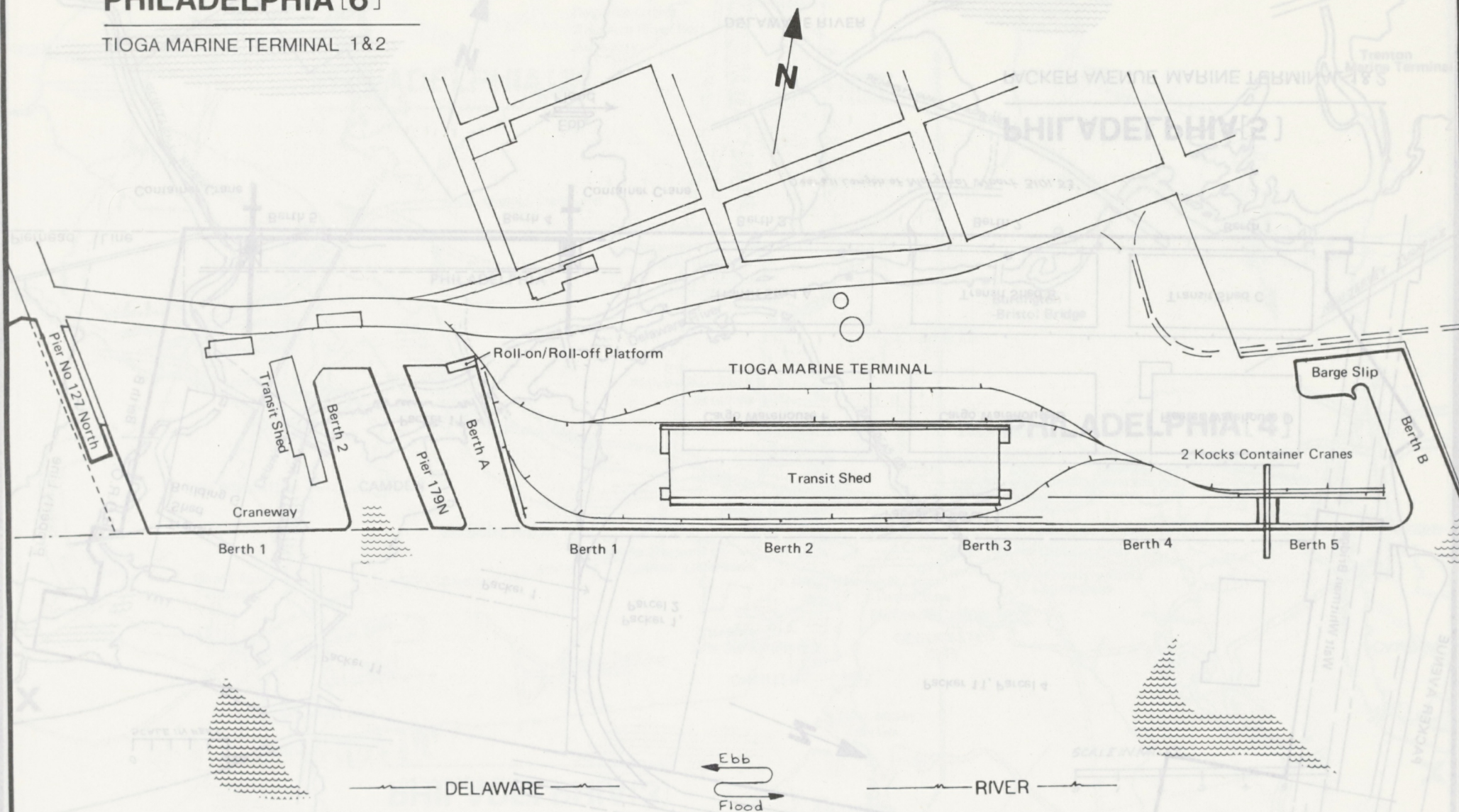
DELAWARE RIVER

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# PHILADELPHIA [6]

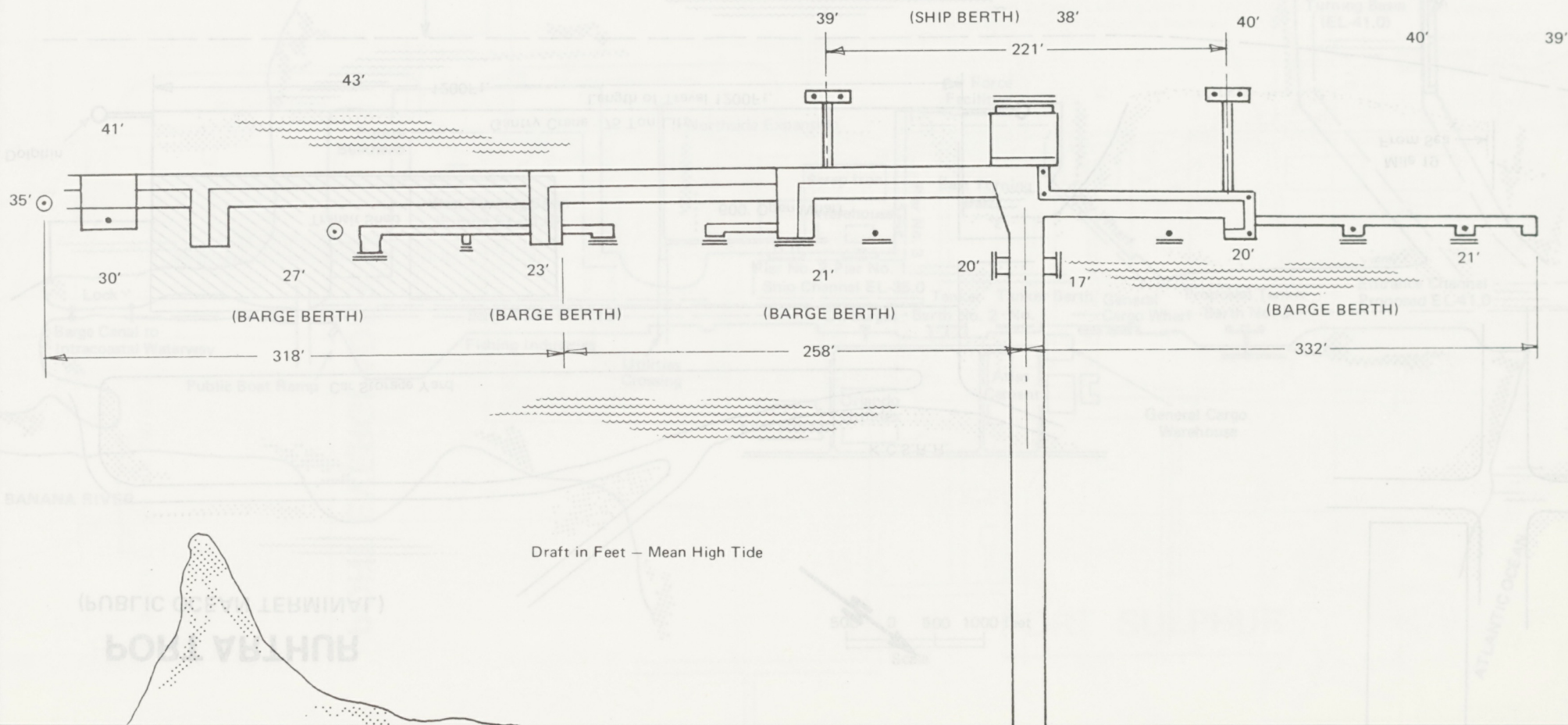
TIOGA MARINE TERMINAL 1&2





# PINEY POINT

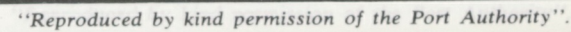
## STEUART PETROLEUM CO. TERMINAL



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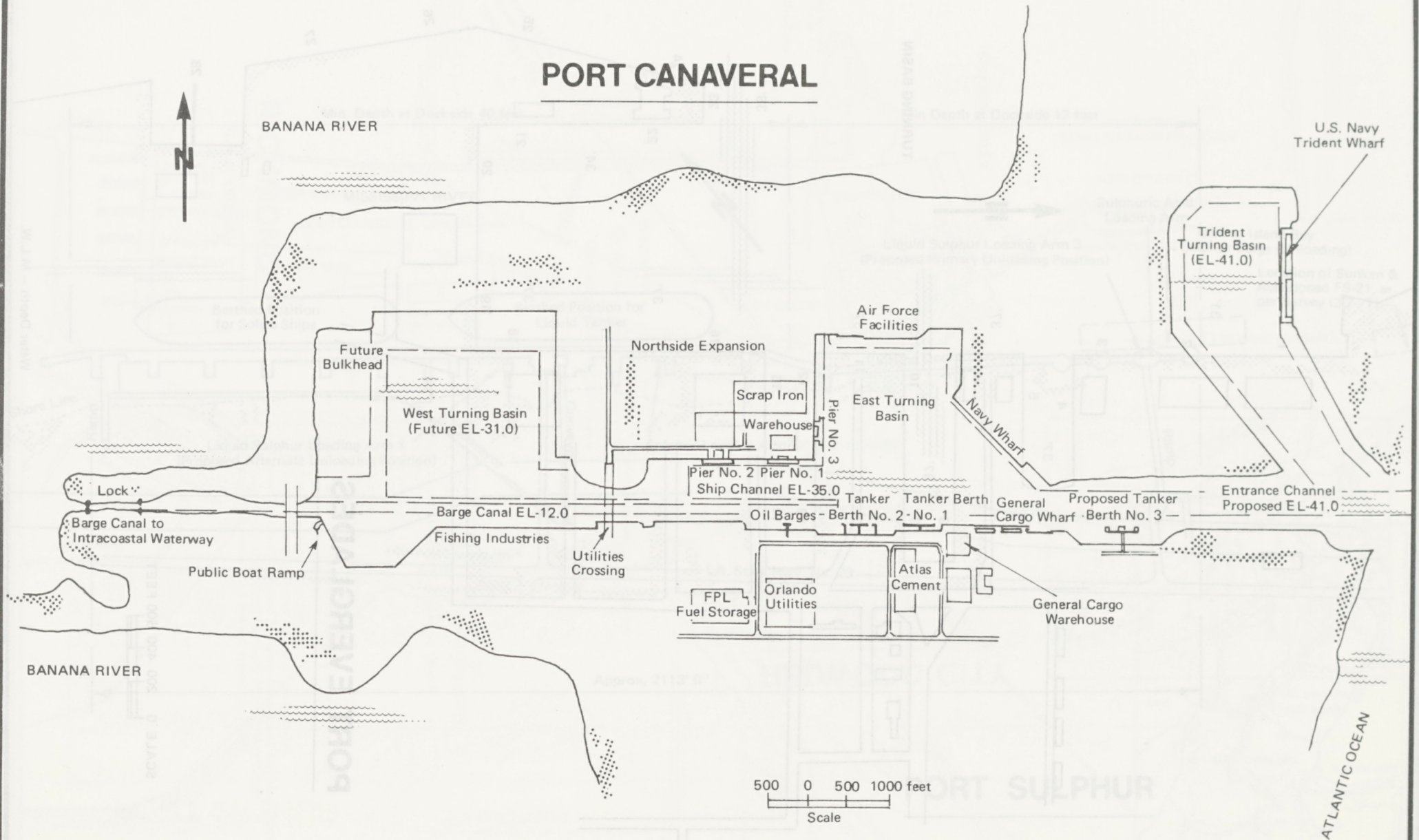


## (PUBLIC OCEAN TERMINAL)





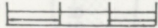
# PORT CANAVERAL



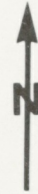


# PORT EVERGLADES

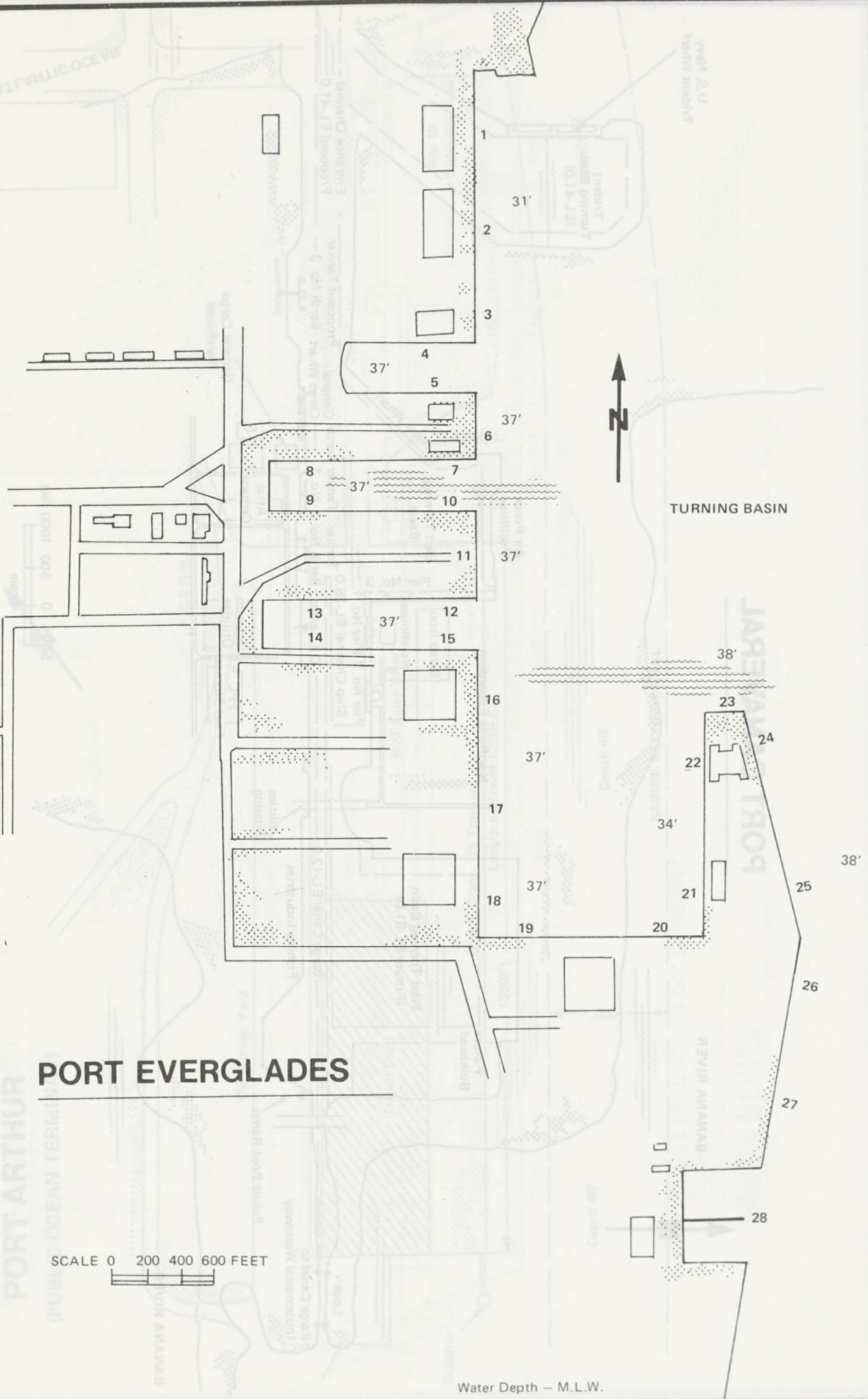
SCALE 0 200 400 600 FEET



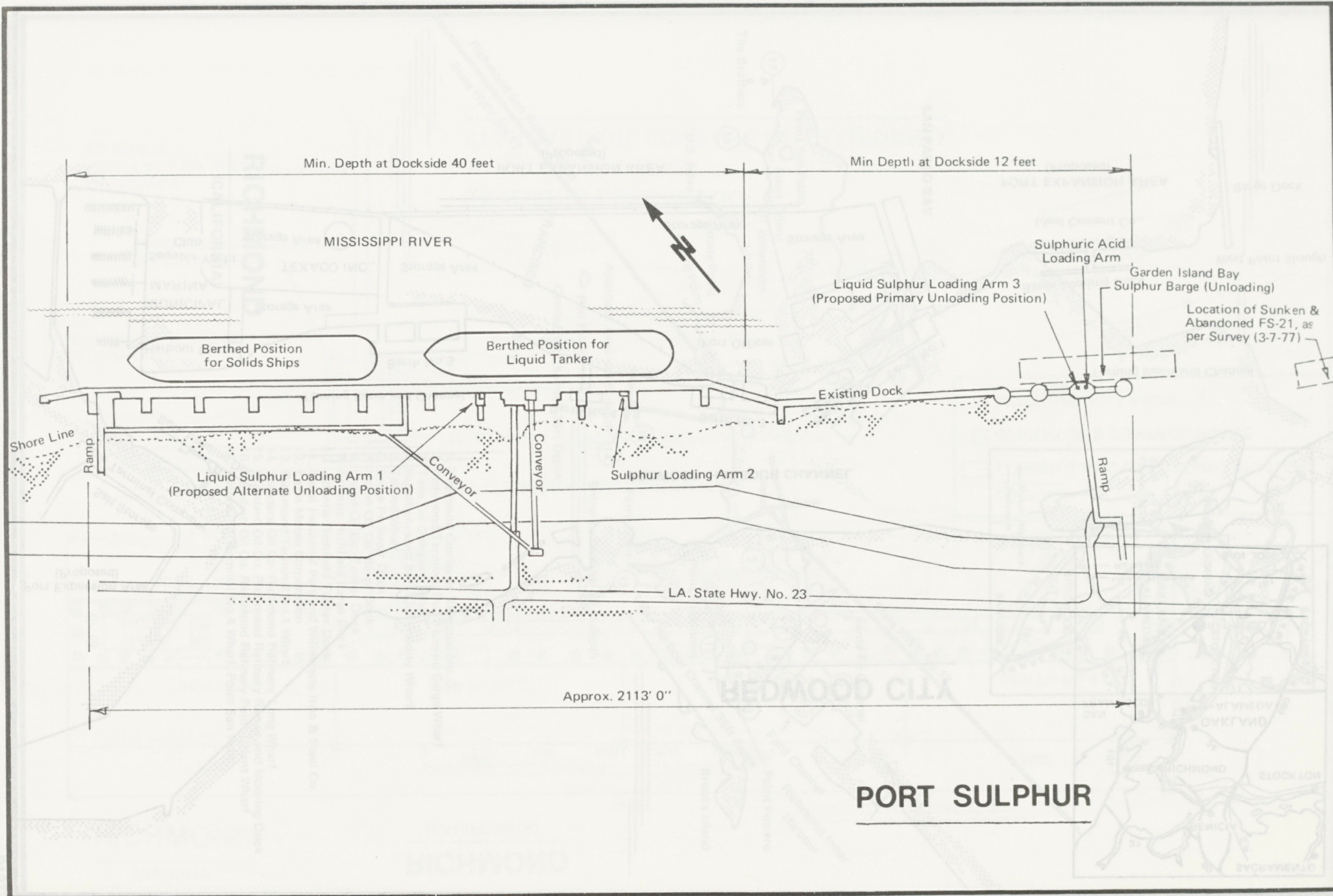
Water Depth — M.L.W.



TURNING BASIN

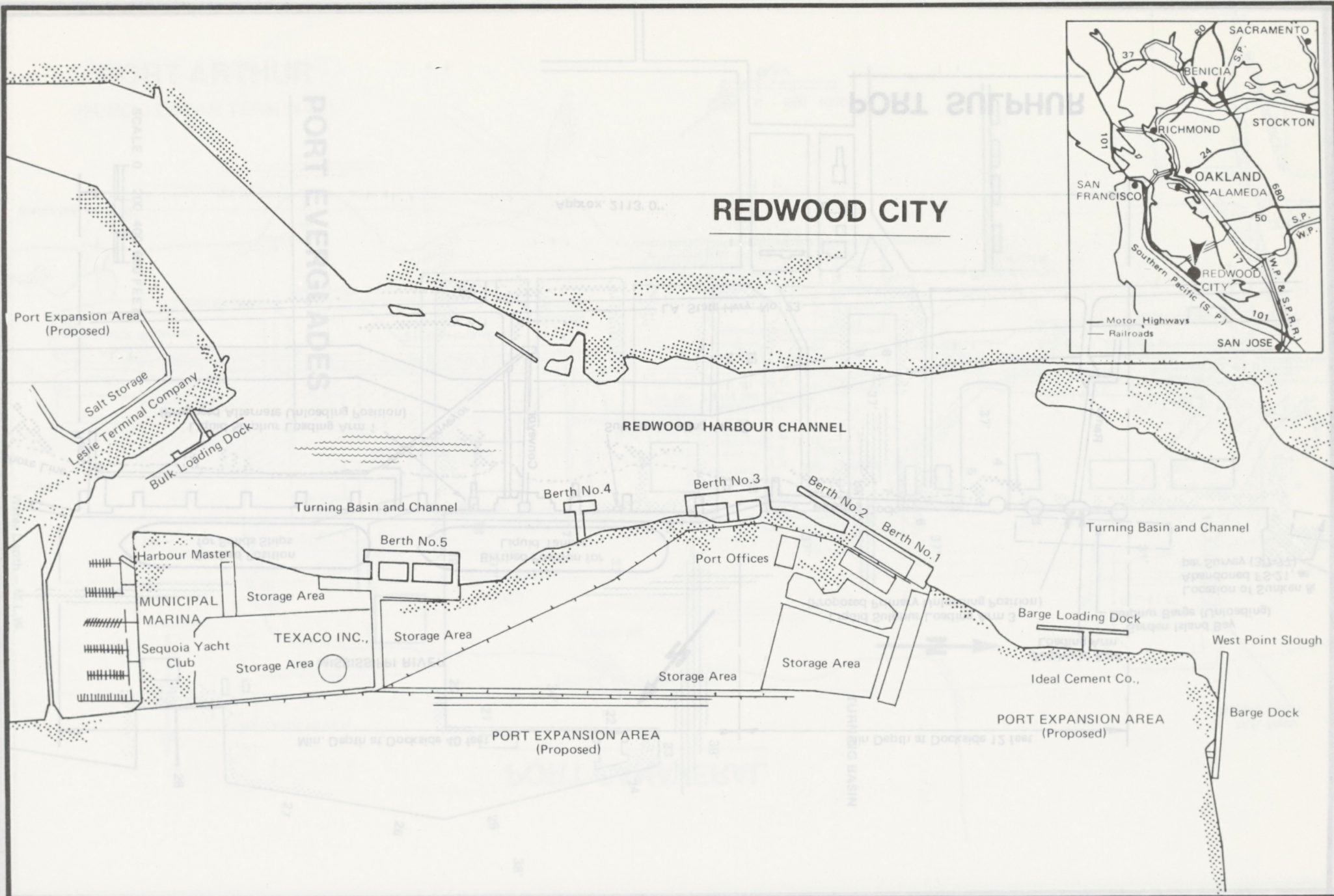




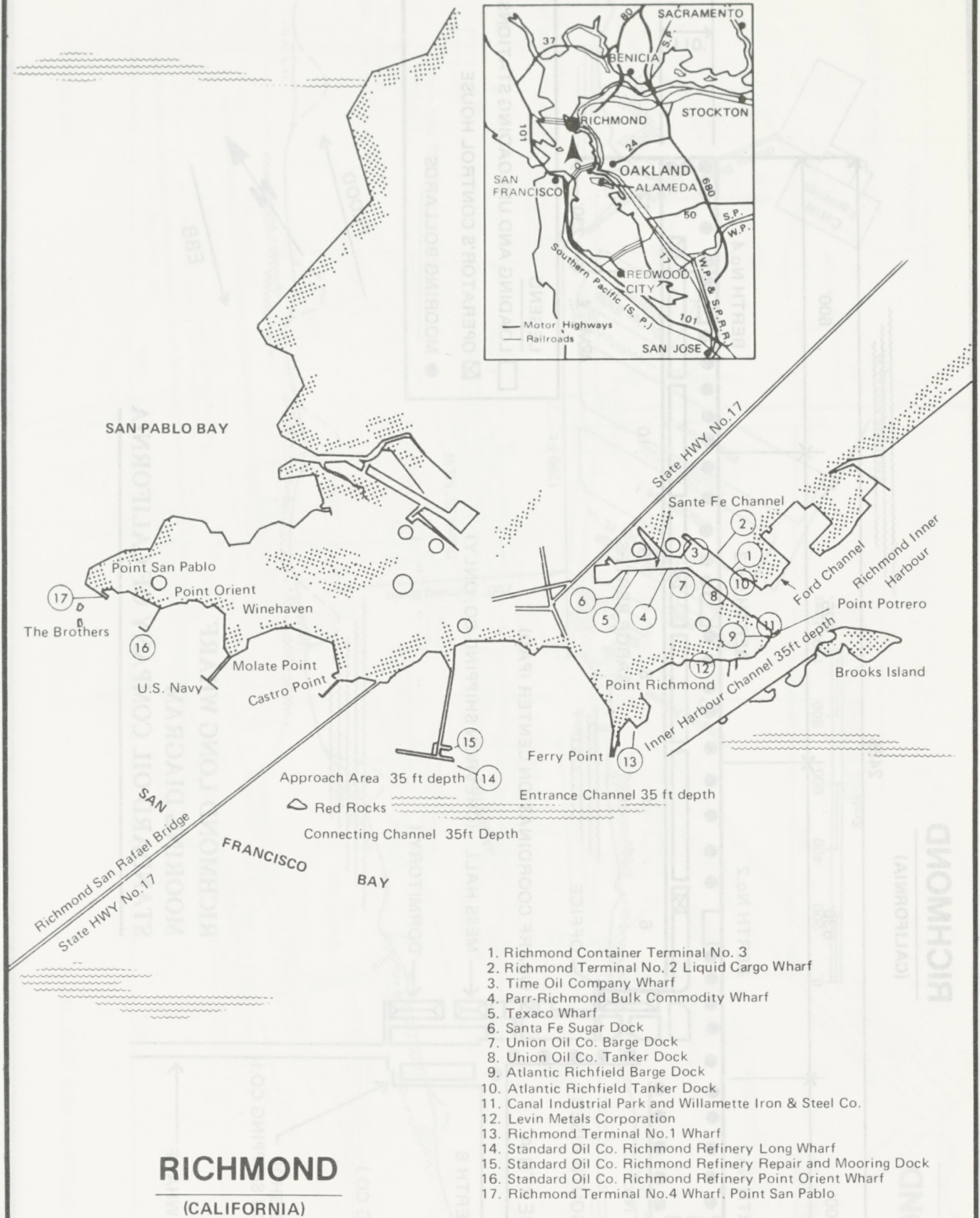


"Reproduced by kind permission of the Port Authority".



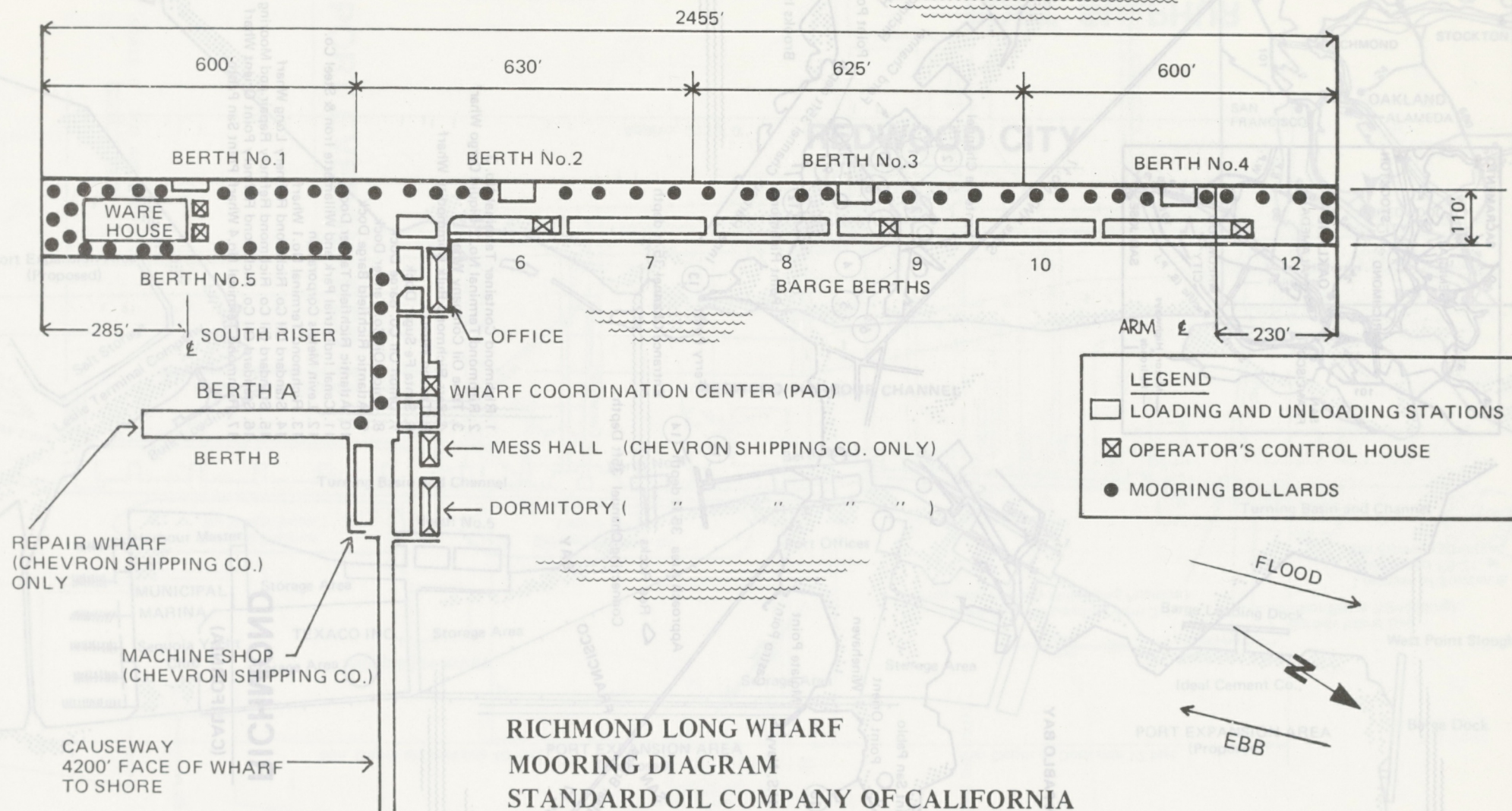




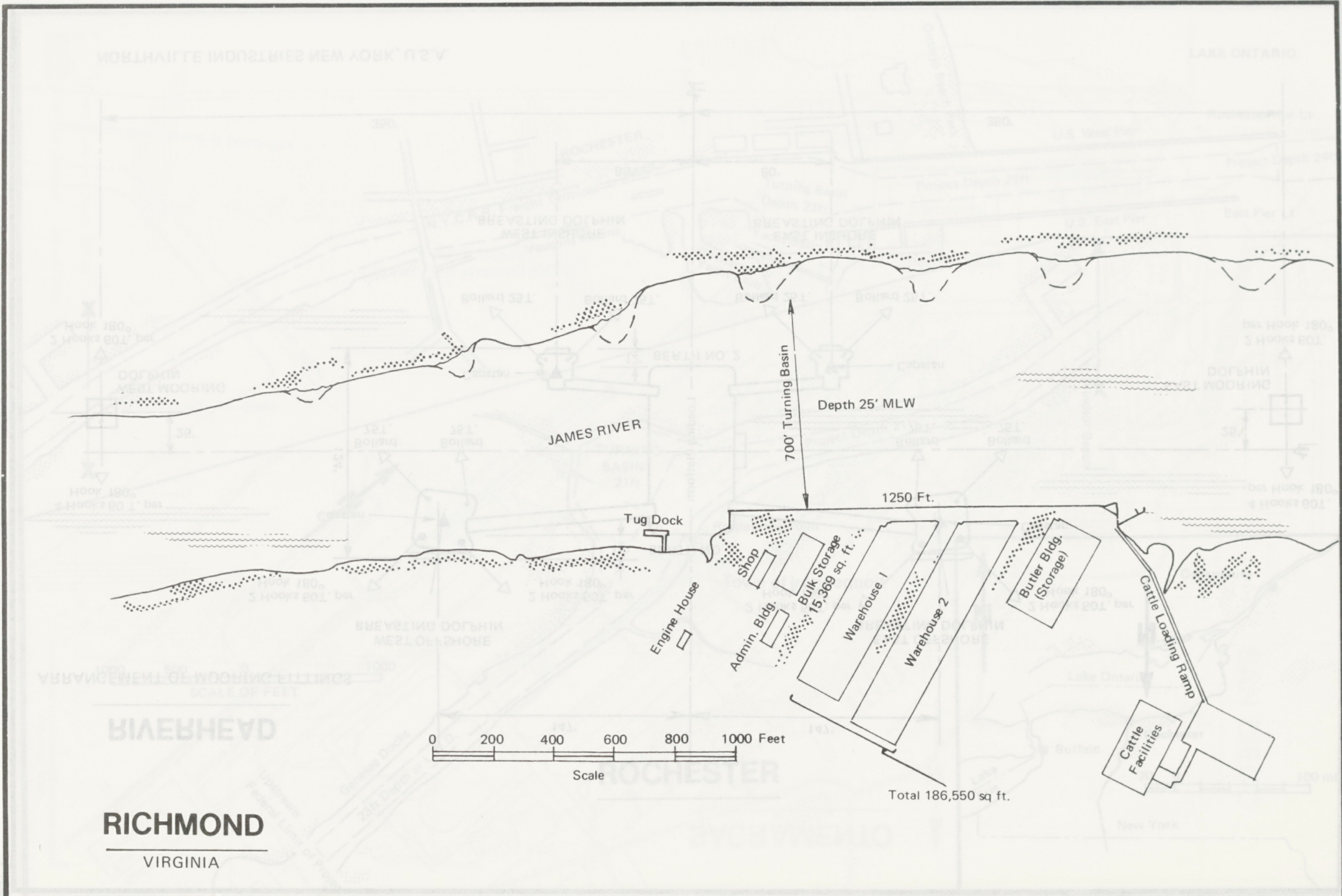




# RICHMOND (CALIFORNIA)

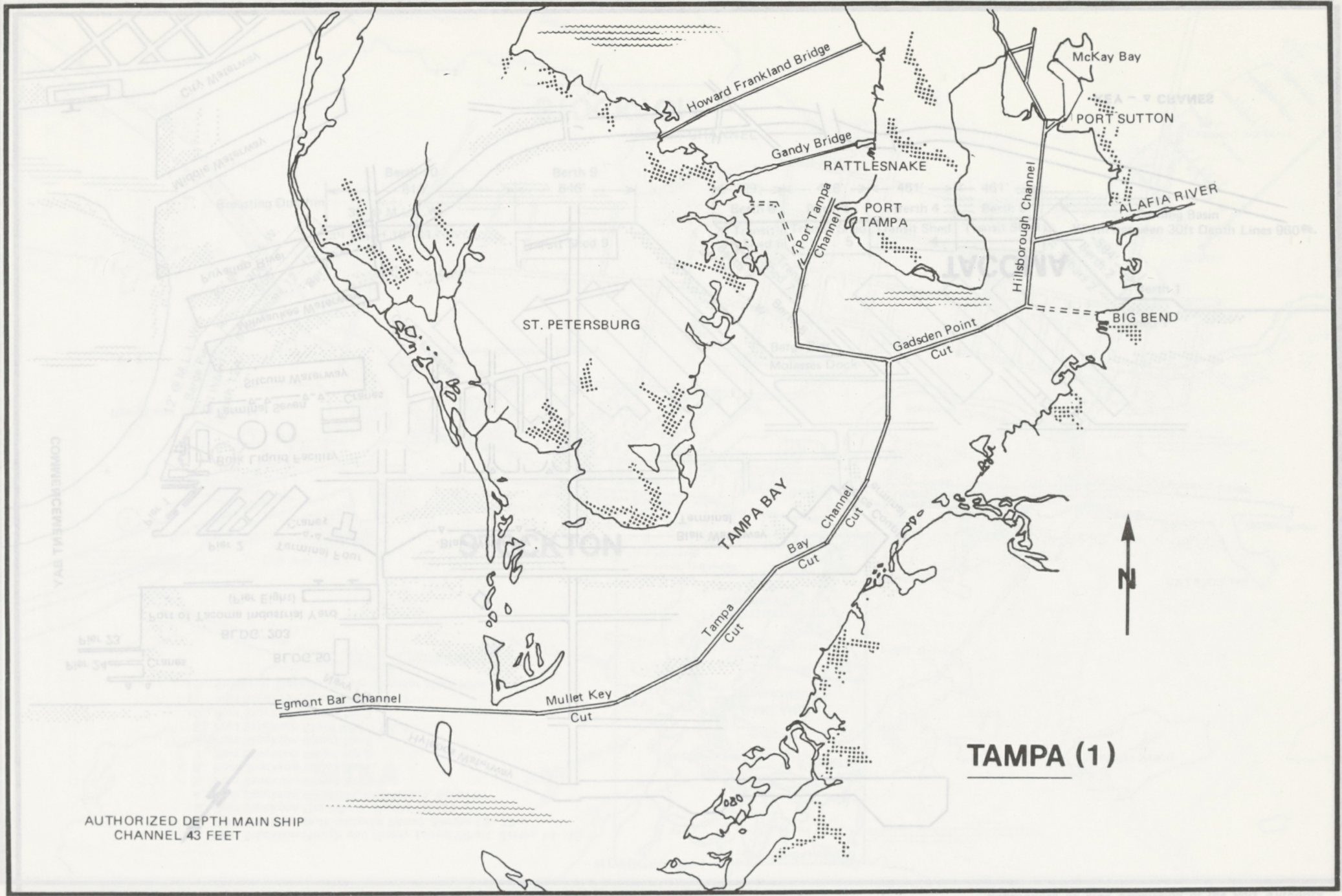






**RICHMOND**  
VIRGINIA

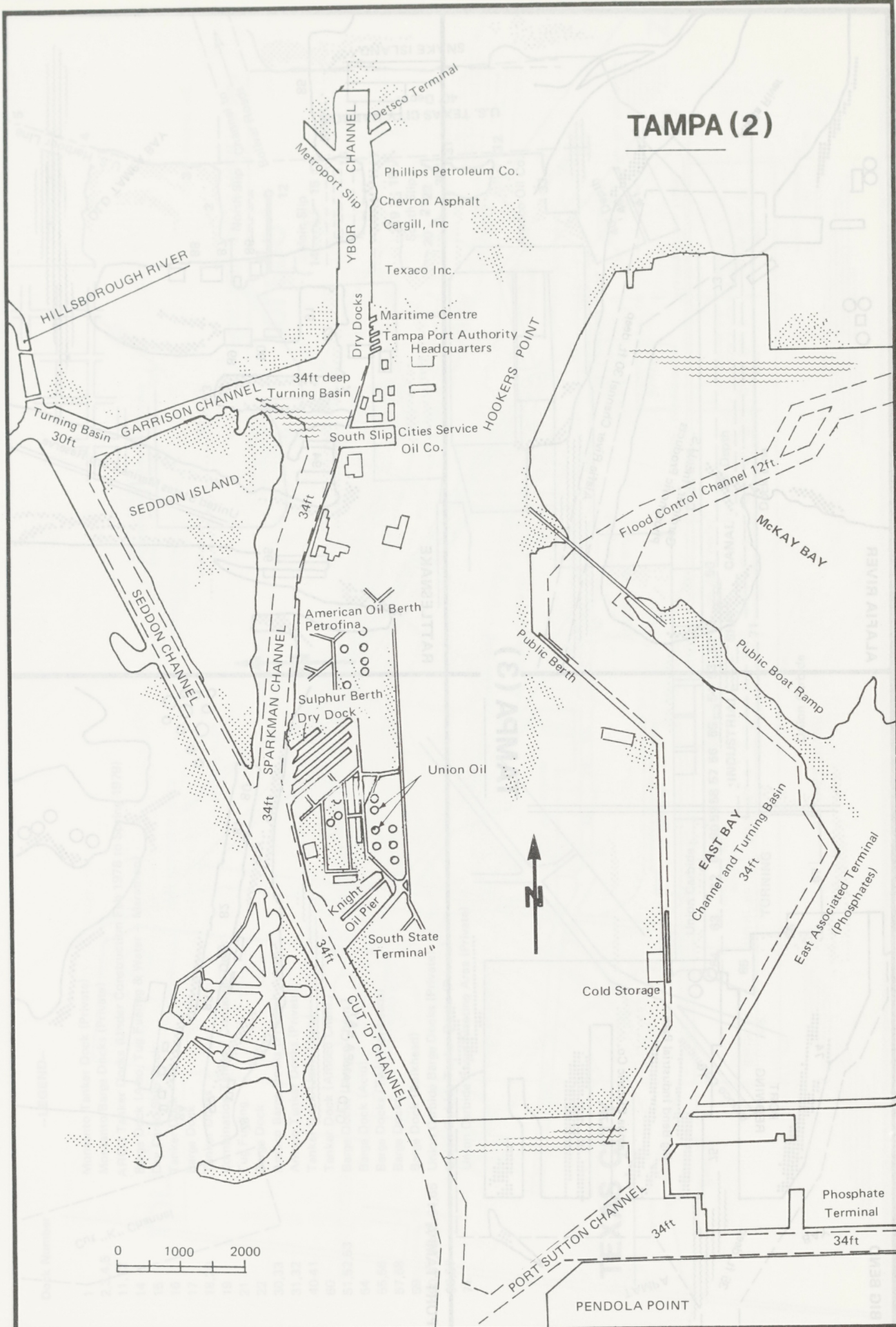




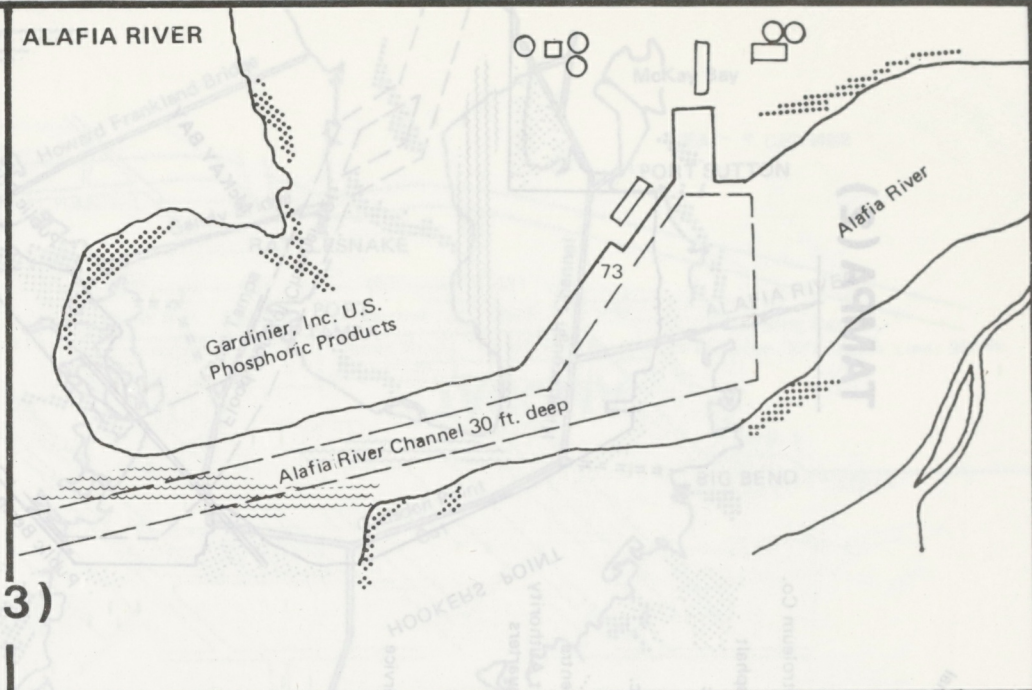
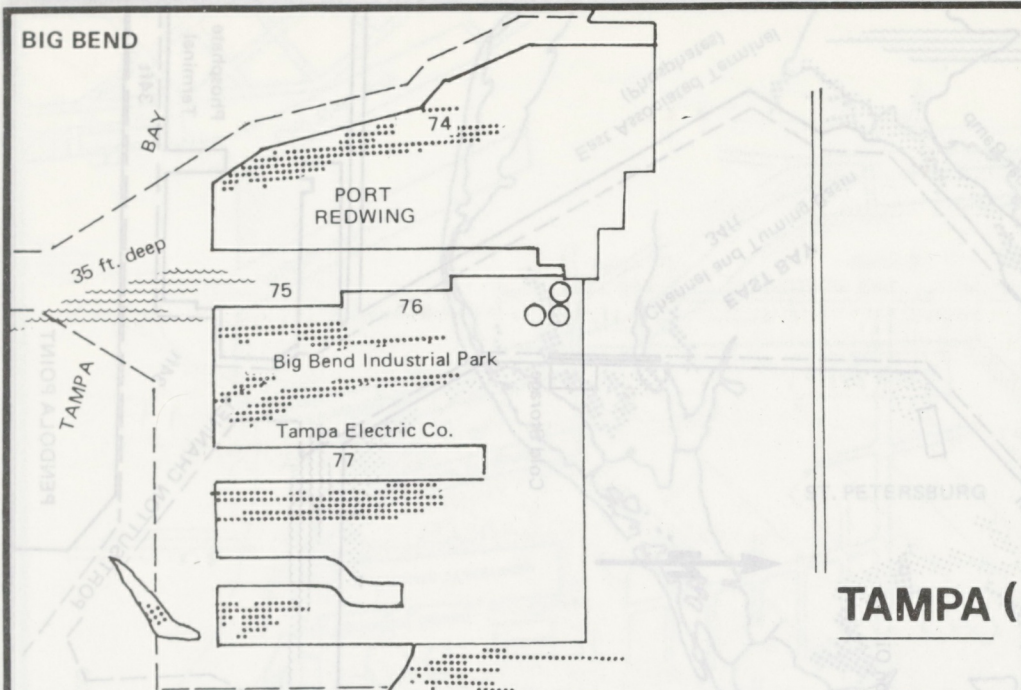
AUTHORIZED DEPTH MAIN SHIP  
CHANNEL 43 FEET

# TAMPA (1)

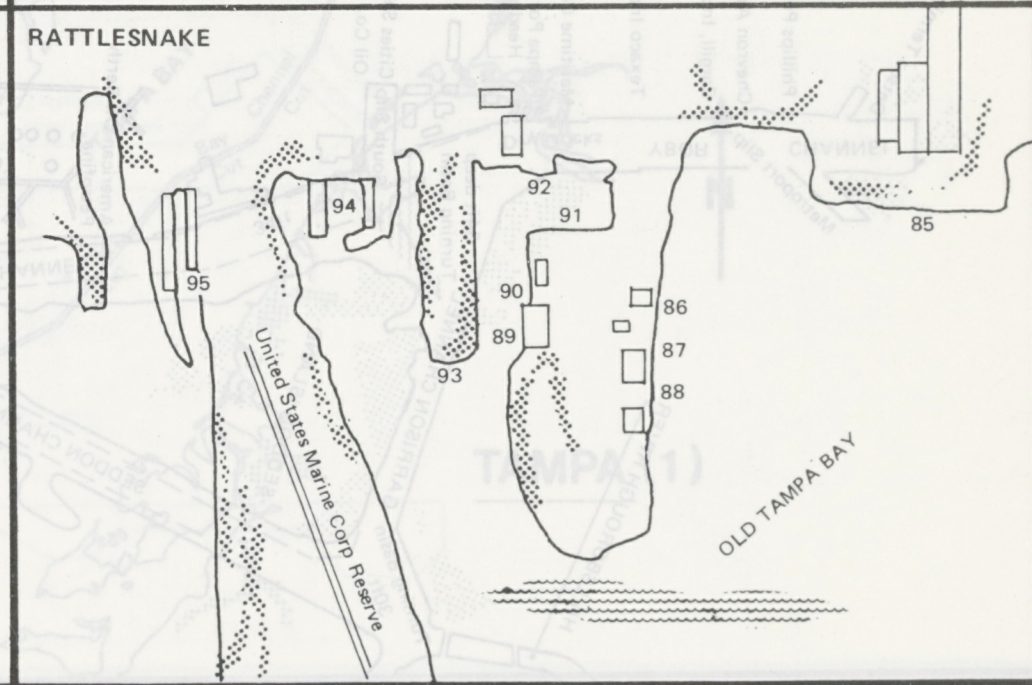
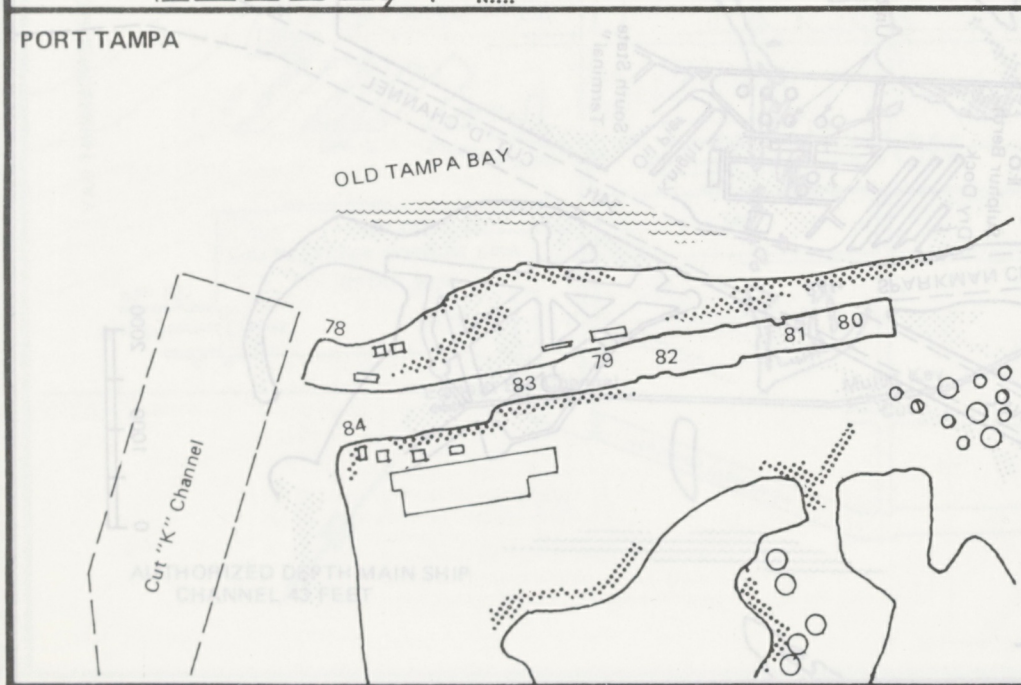








**TAMPA (3)**



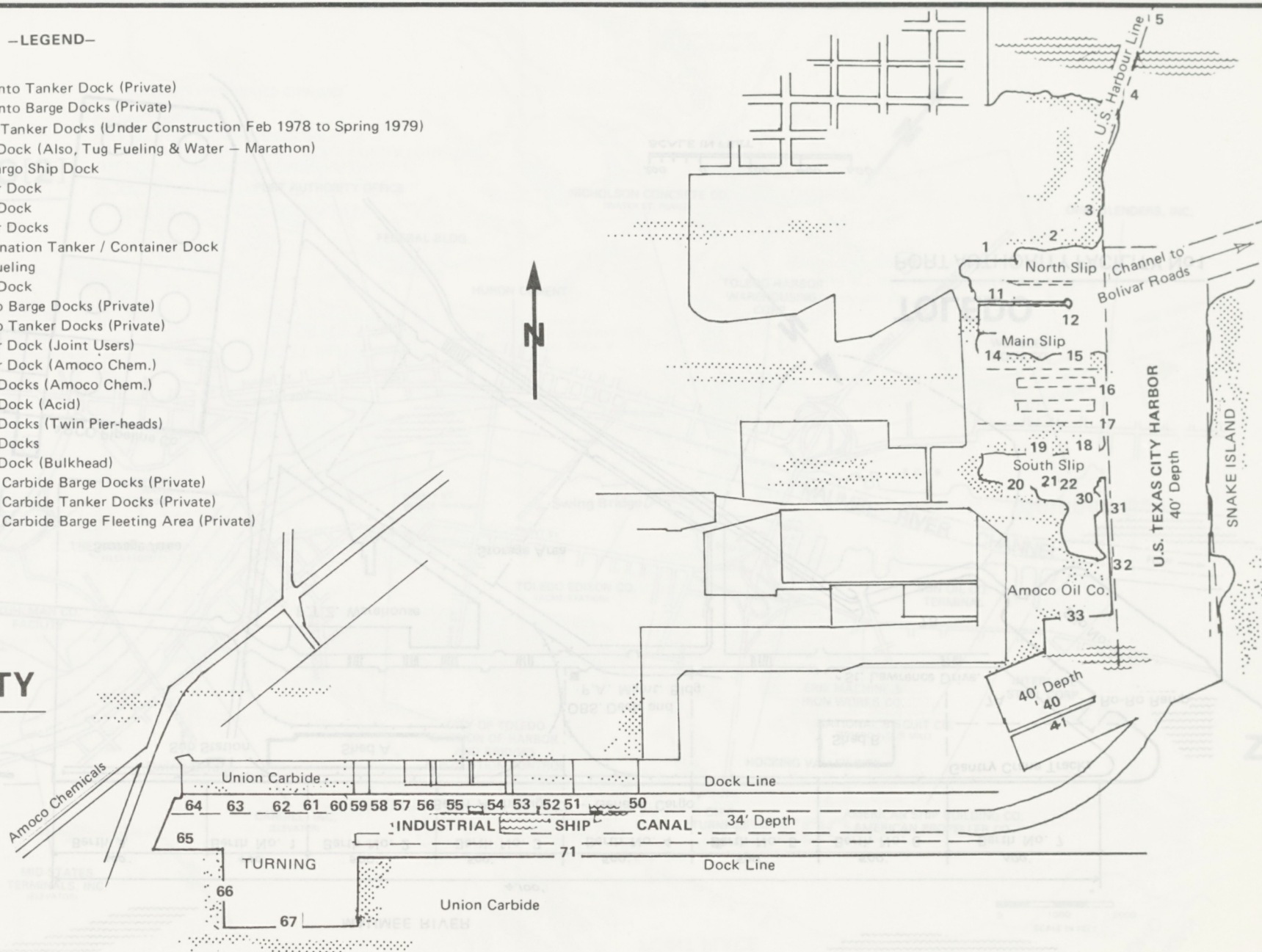


Dock Number

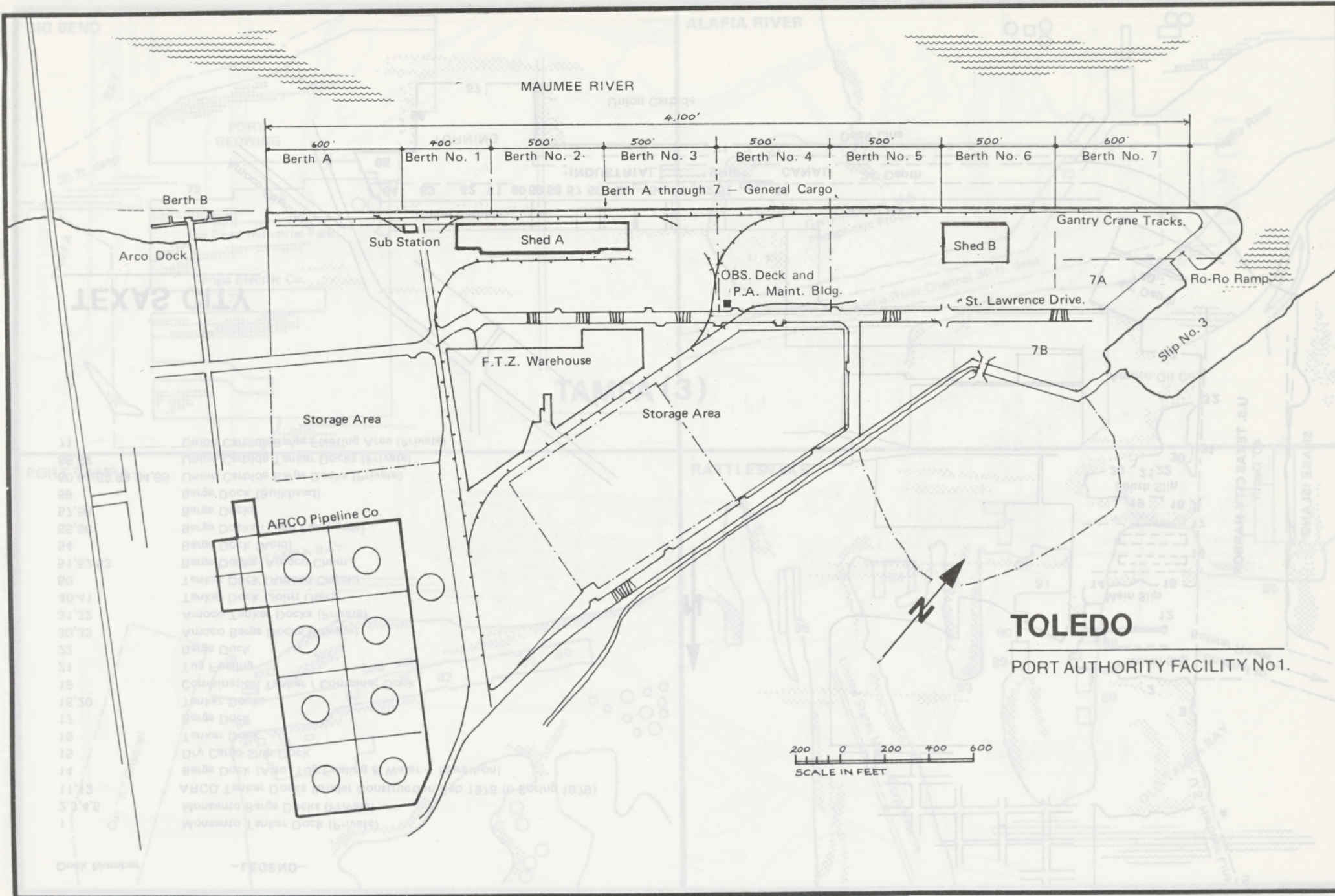
—LEGEND—

- |                   |  |
|-------------------|--|
| 1                 | Monsanto Tanker Dock (Private)                                 |
| 2,3,4,5           | Monsanto Barge Docks (Private)                                 |
| 11,12             | ARCO Tanker Docks (Under Construction Feb 1978 to Spring 1979) |
| 14                | Barge Dock (Also, Tug Fueling & Water — Marathon)              |
| 15                | Dry Cargo Ship Dock  |
| 16                | Tanker Dock  |
| 17                | Barge Dock   |
| 18,20             | Tanker Docks   |
| 19                | Combination Tanker / Container Dock                            |
| 21                | Tug Fueling  |
| 22                | Barge Dock   |
| 30,33             | Amoco Barge Docks (Private)                                    |
| 31,32             | Amoco Tanker Docks (Private)                                   |
| 40-41             | Tanker Dock (Joint Users)                                      |
| 60                | Tanker Dock (Amoco Chem.)                                      |
| 51,52,53          | Barge Docks (Amoco Chem.)                                      |
| 54                | Barge Dock (Acid)  |
| 55,56             | Barge Docks (Twin Pier-heads)                                  |
| 57,58             | Barge Docks  |
| 59                | Barge Dock (Bulkhead)  |
| 60,61,62,63,64,65 | Union Carbide Barge Docks (Private)                            |
| 66,67             | Union Carbide Tanker Docks (Private)                           |
| 71                | Union Carbide Barge Fleeting Area (Private)                    |

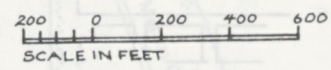
TEXAS CITY







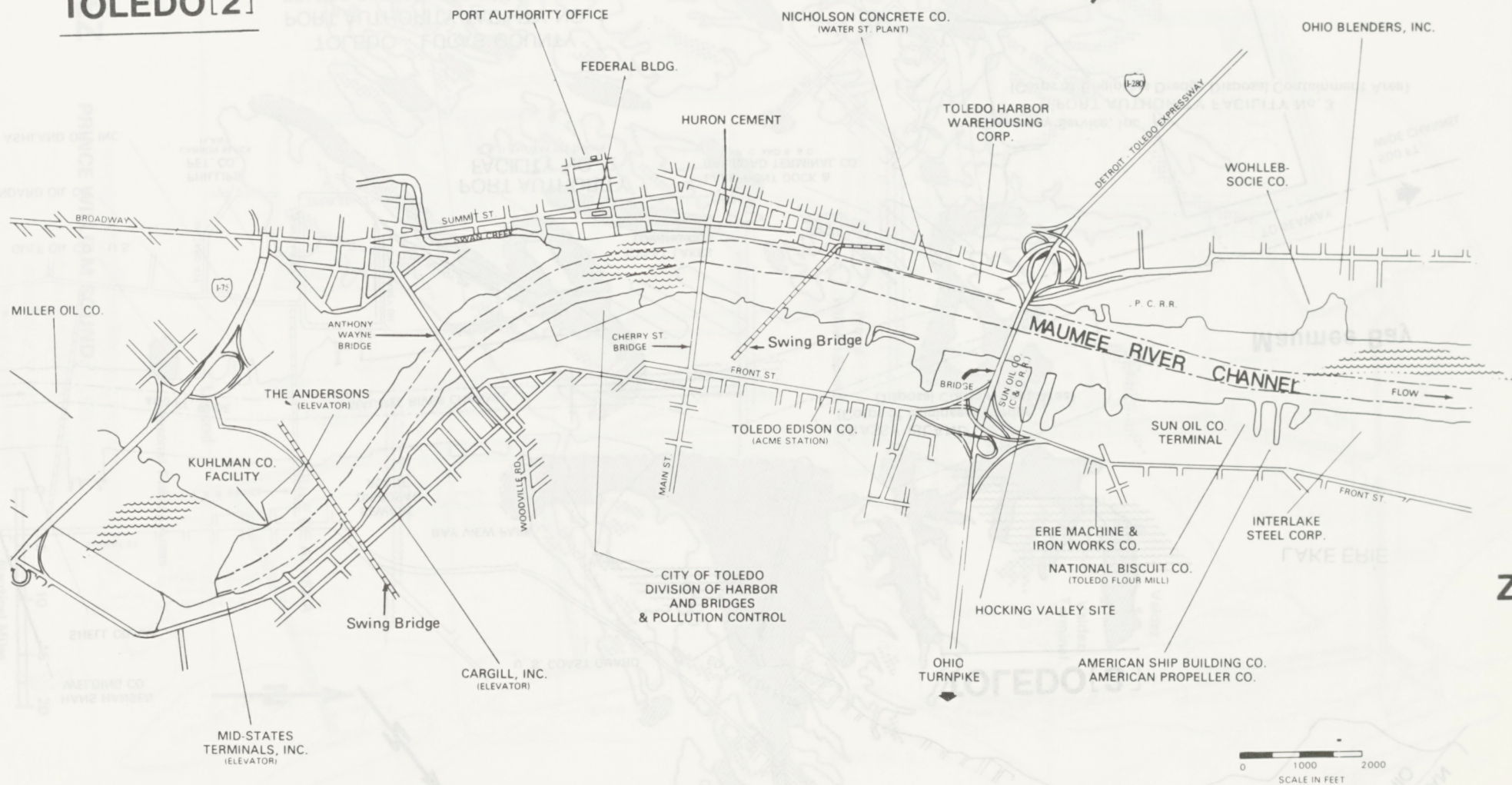
**TOLEDO**  
PORT AUTHORITY FACILITY No1.



—LEGEND—

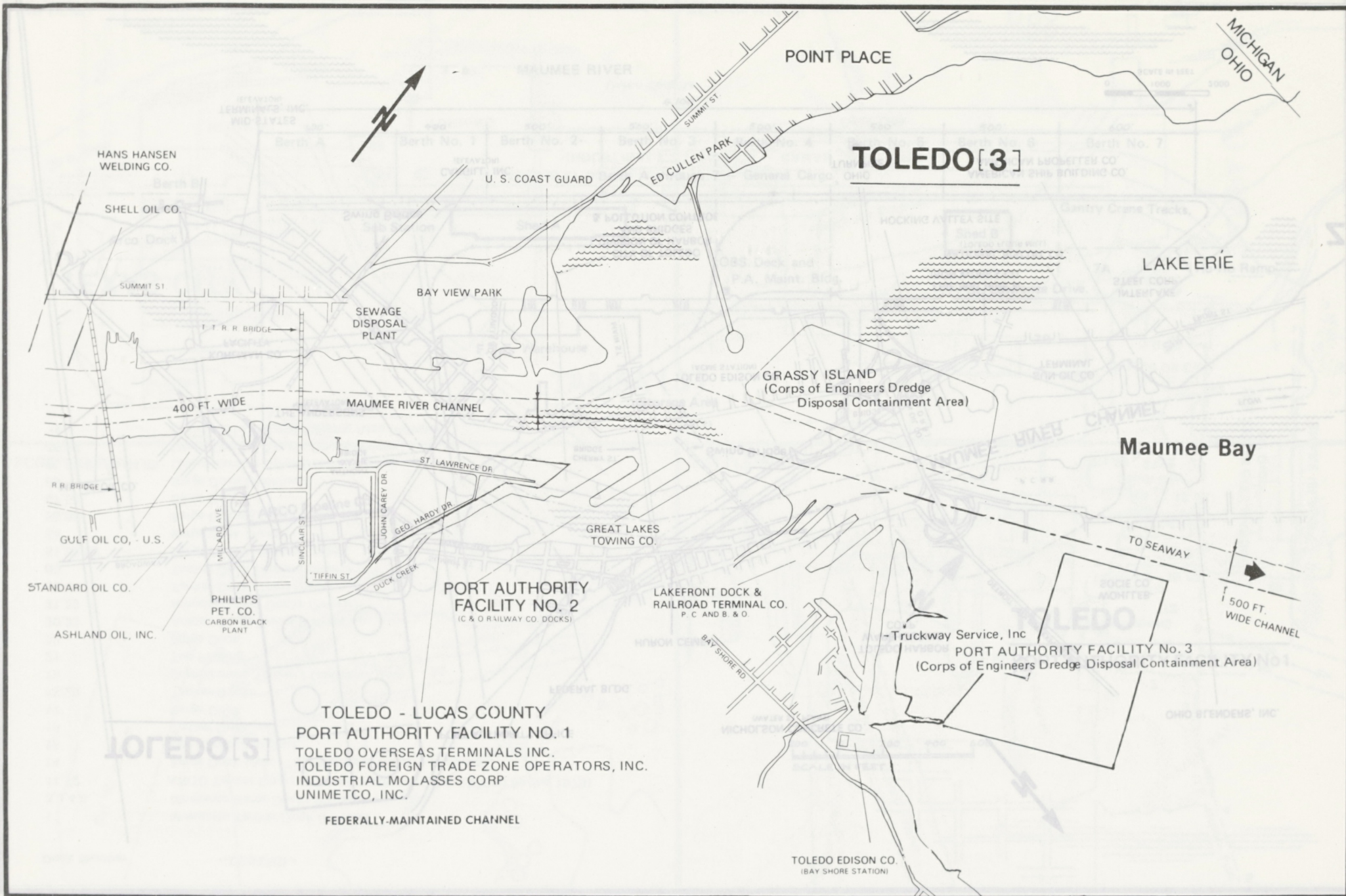


# TOLEDO[2]

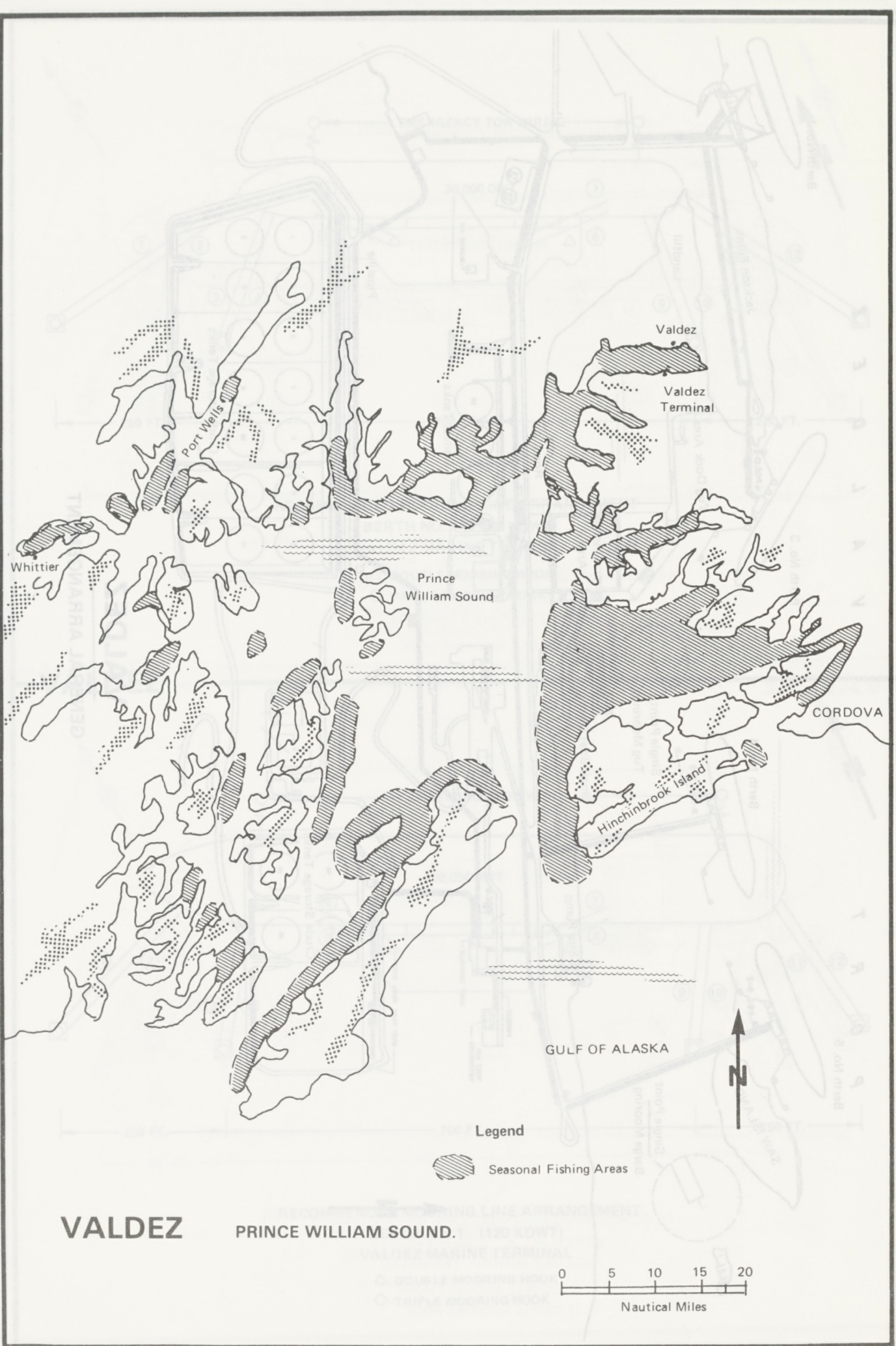


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P O R T

V A L D E Z

Berth No. 5

Berth No. 3

Berth No. 1

SAW ISLAND

Single Point  
Barge Mooring

Berth No. 4

Single Point  
Tug Mooring

Breakwater

Small Boat Dock

Fire Pump

Tug Dock Area

Landfill

Road 'A'

Ballast Tanks

Pipeline

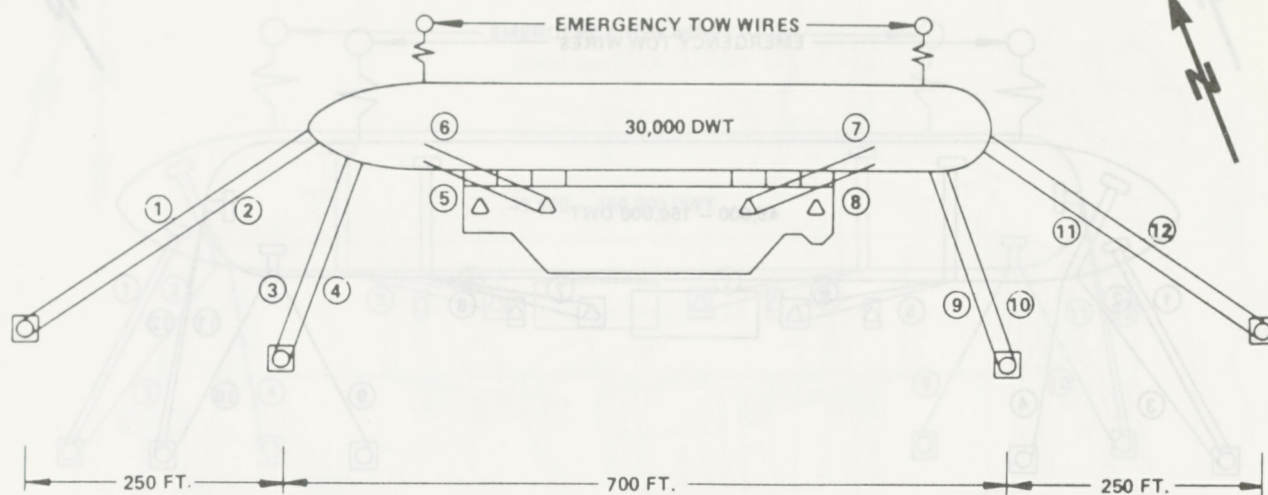
Crude Storage Tanks

Crude Storage Tanks

VALDEZ

GENERAL ARRANGEMENT

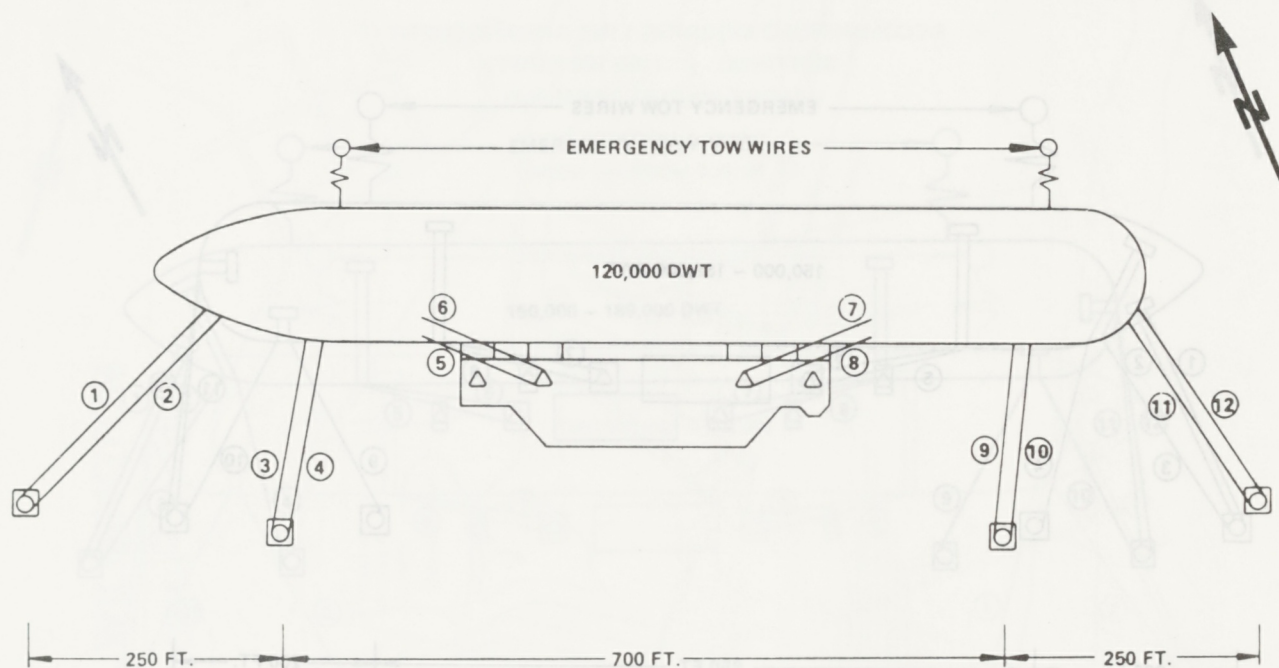




RECOMMENDED MOORING LINE ARRANGEMENT  
 BERTH NO. 1 (30 KDWT)  
 VALDEZ MARINE TERMINAL

- △ DOUBLE MOORING HOOK  
 ○ TRIPLE MOORING HOOK

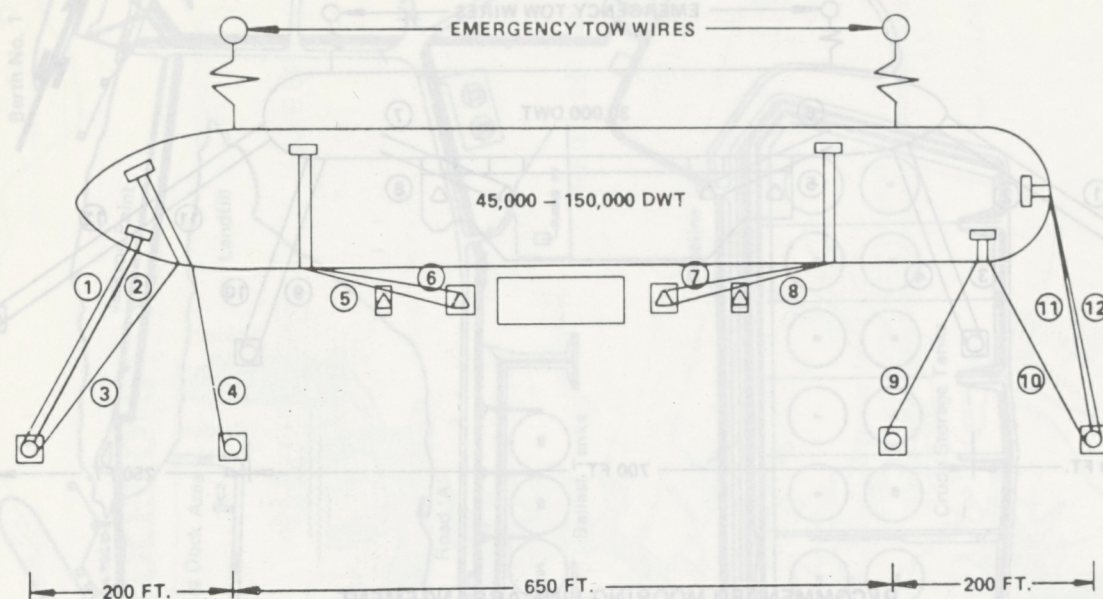
## —VALDEZ



RECOMMENDED MOORING LINE ARRANGEMENT  
 BERTH NO. 1 (120 KDWT)  
 VALDEZ MARINE TERMINAL

- △ DOUBLE MOORING HOOK  
 ○ TRIPLE MOORING HOOK

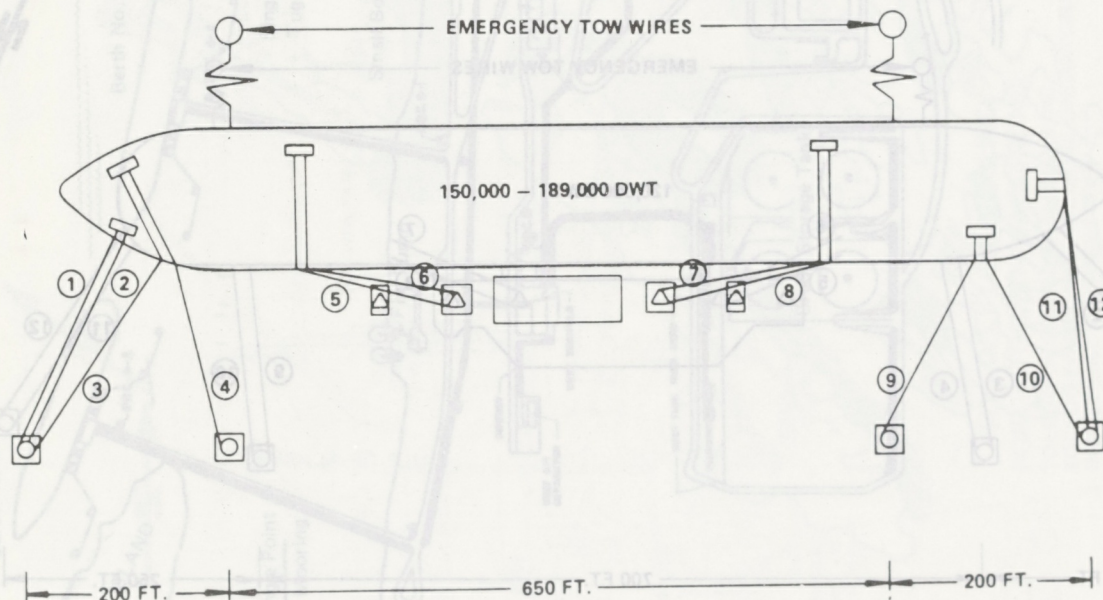




RECOMMENDED MOORING LINE ARRANGEMENT  
 BERTH NO. 3 (45-150 KDWT)  
 VALDEZ MARINE TERMINAL

- △ DOUBLE MOORING HOOK  
 ○ TRIPLE MOORING HOOK

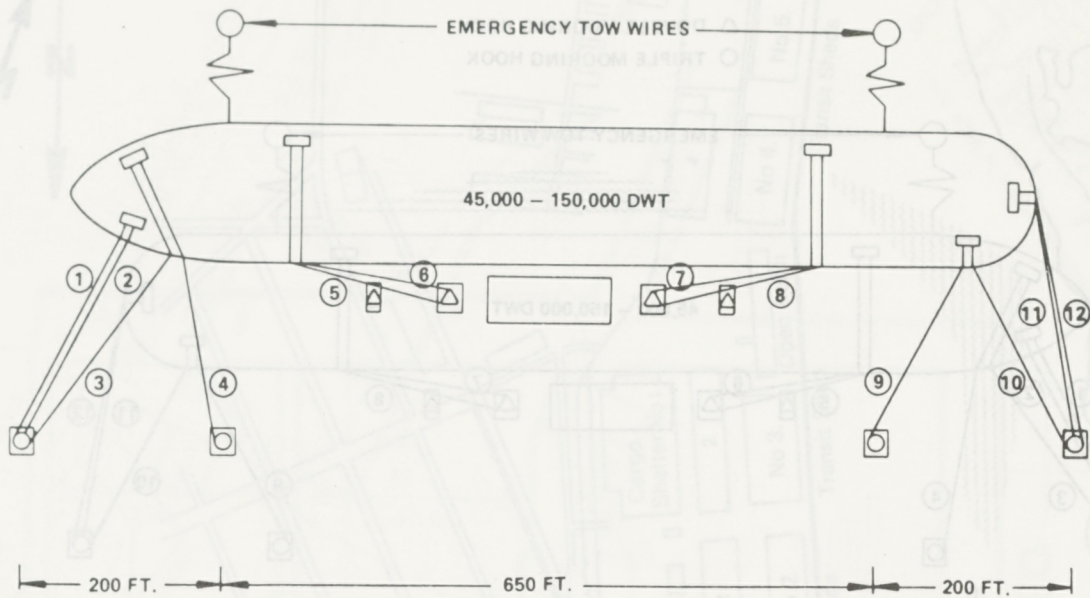
— VALDEZ



RECOMMENDED MOORING LINE ARRANGEMENT  
 BERTH NO. 3 (150-189 KDWT)  
 VALDEZ MARINE TERMINAL

- △ DOUBLE MOORING HOOK  
 ○ TRIPLE MOORING HOOK

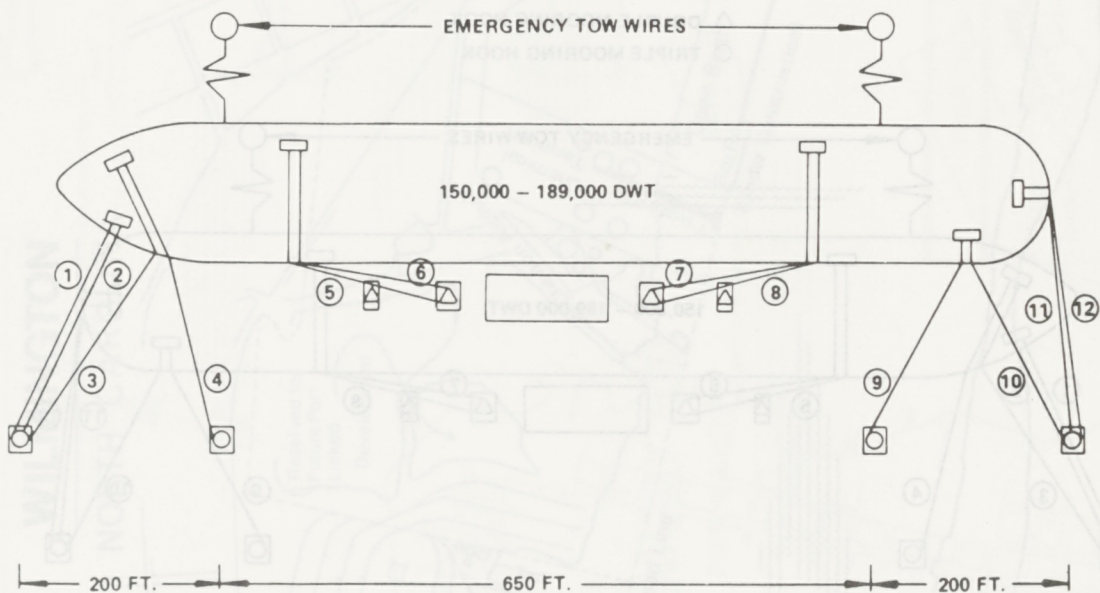




RECOMMENDED MOORING LINE ARRANGEMENT  
 BERTH NO. 4 (45-150 KDWT)  
 VALDEZ MARINE TERMINAL

- △ DOUBLE MOORING HOOK  
 ○ TRIPLE MOORING HOOK

VALDEZ



RECOMMENDED MOORING LINE ARRANGEMENT  
 BERTH NO. 4 (150-189 KDWT)  
 VALDEZ MARINE TERMINAL

- △ DOUBLE MOORING HOOK  
 ○ TRIPLE MOORING HOOK



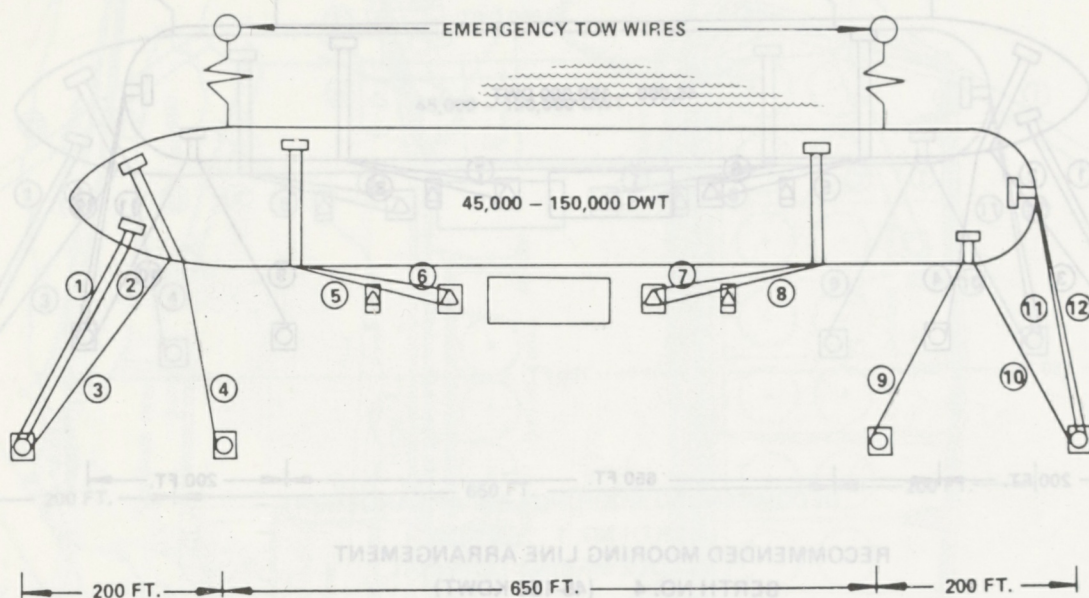
## RECOMMENDED MOORING LINE ARRANGEMENT

BERTH NO. 5 (45-150 KDWT)

VALDEZ MARINE TERMINAL

△ DOUBLE MOORING HOOK

○ TRIPLE MOORING HOOK

**VALDEZ**

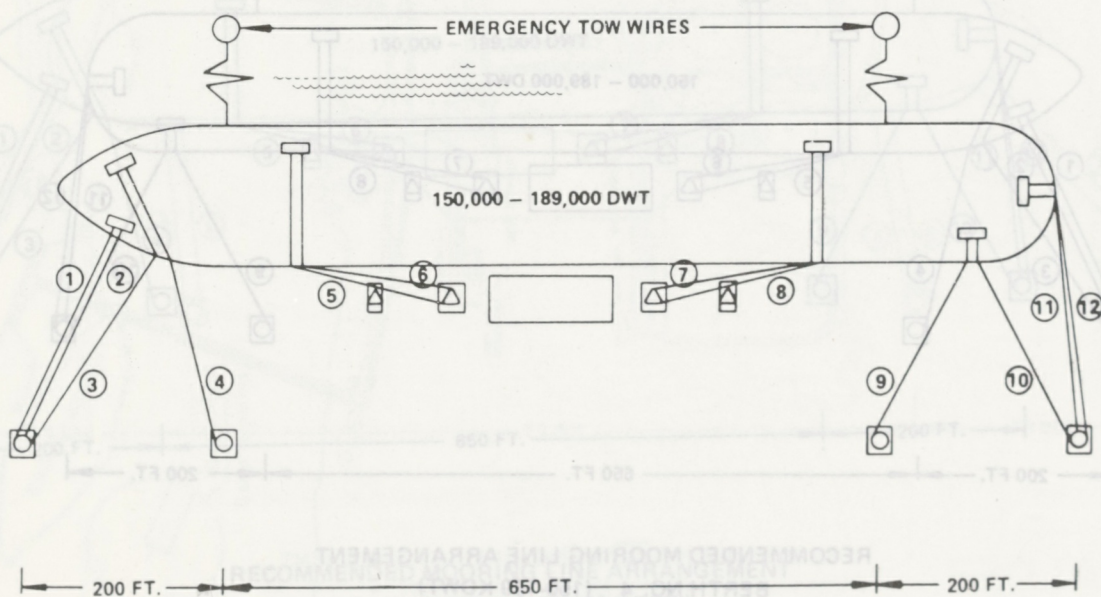
## RECOMMENDED MOORING LINE ARRANGEMENT

BERTH NO. 5 (150-189 KDWT)

VALDEZ MARINE TERMINAL

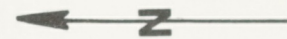
△ DOUBLE MOORING HOOK

○ TRIPLE MOORING HOOK





# WILMINGTON NORTH CAROLINA

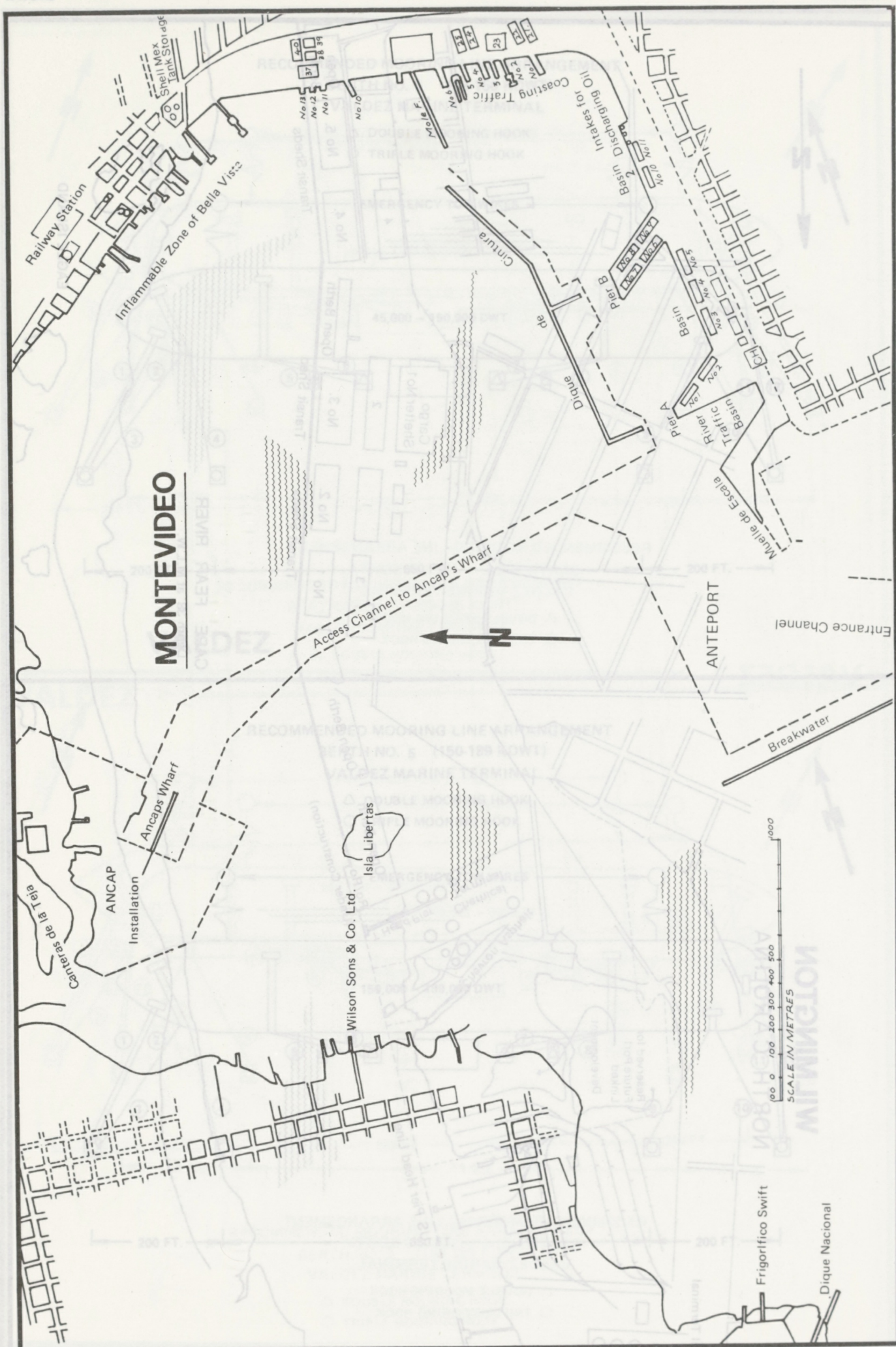


CAPE FEAR RIVER  
Depth 38' at M.L.W.

EAGLE ISLAND

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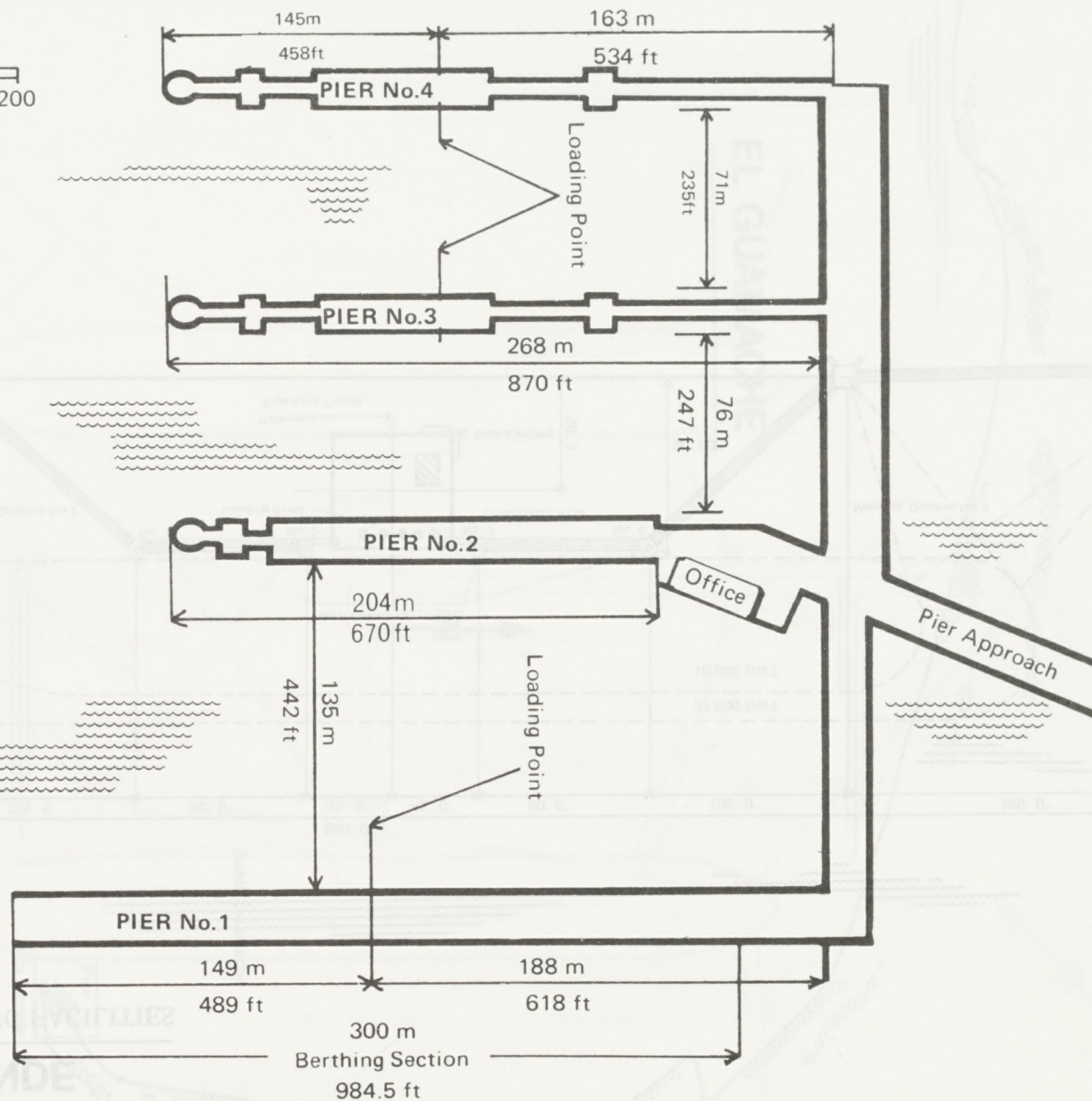


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# AMUAY BAY PIER LAYOUT

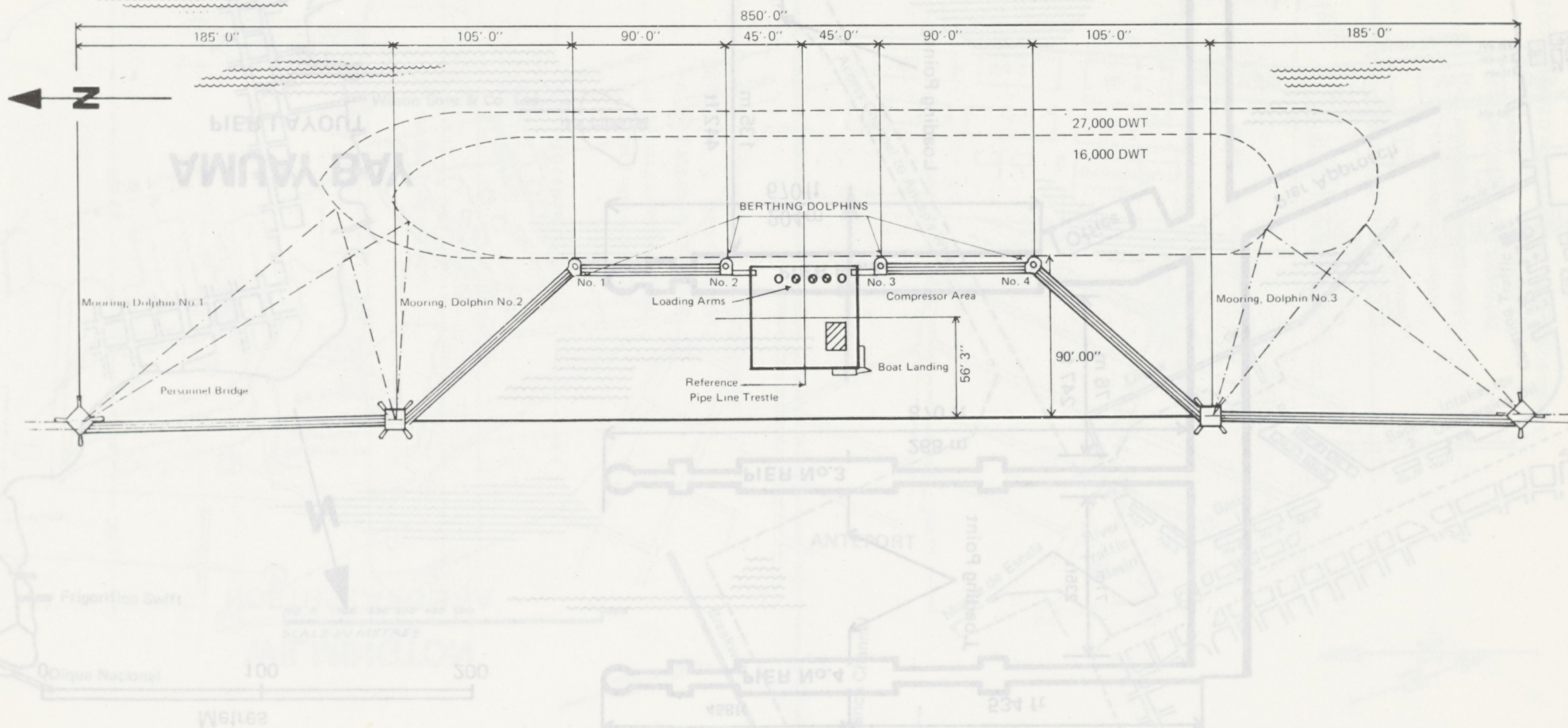


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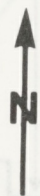
# BAJO GRANDE

## MARINE LOADING FACILITIES



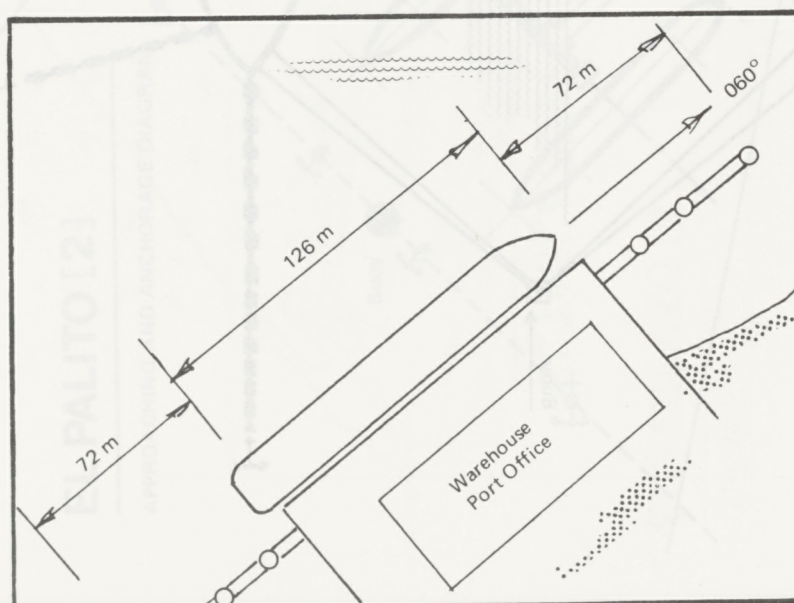


# EL GUAMACHE

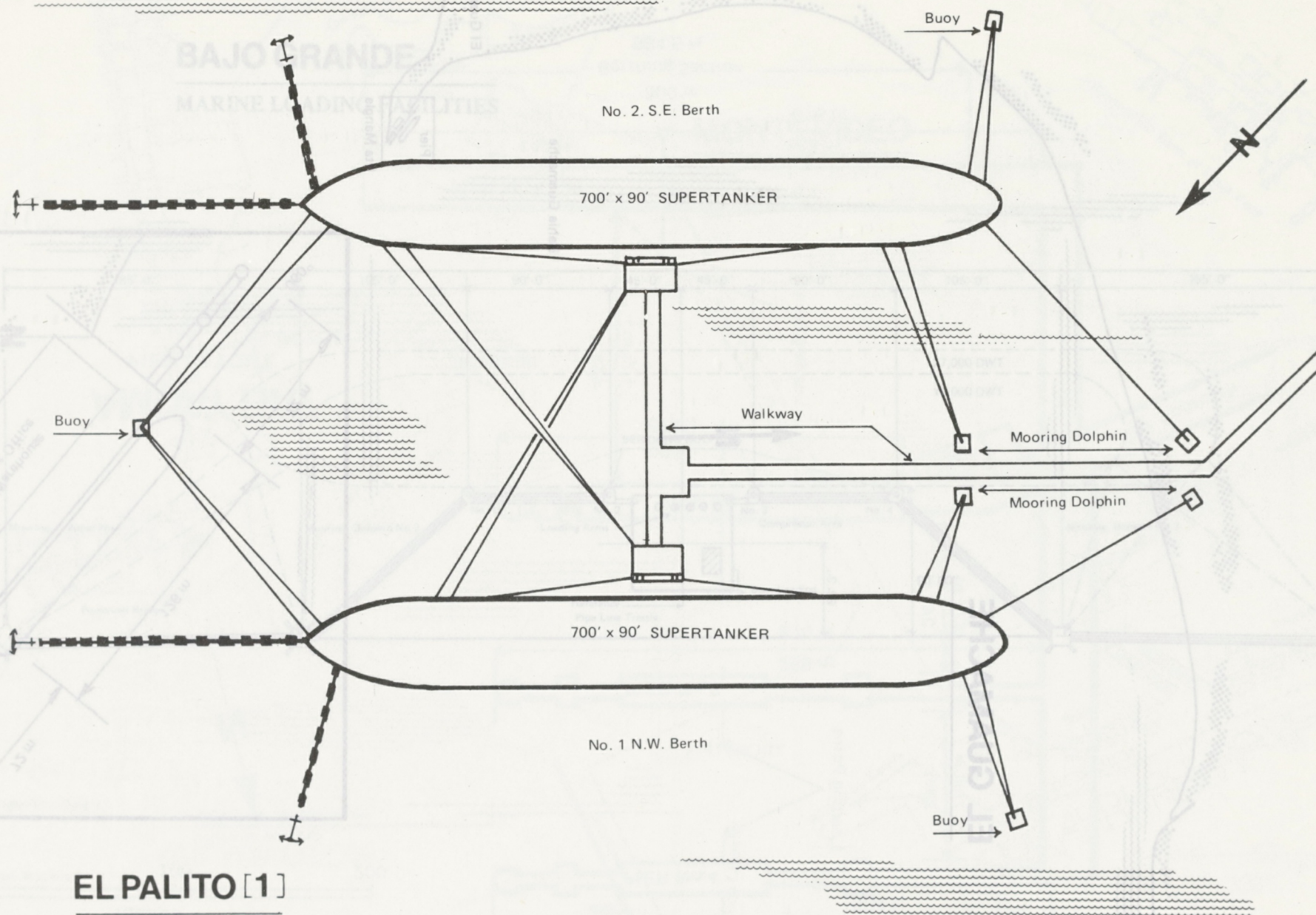


Bahia Guamache

El Guamache







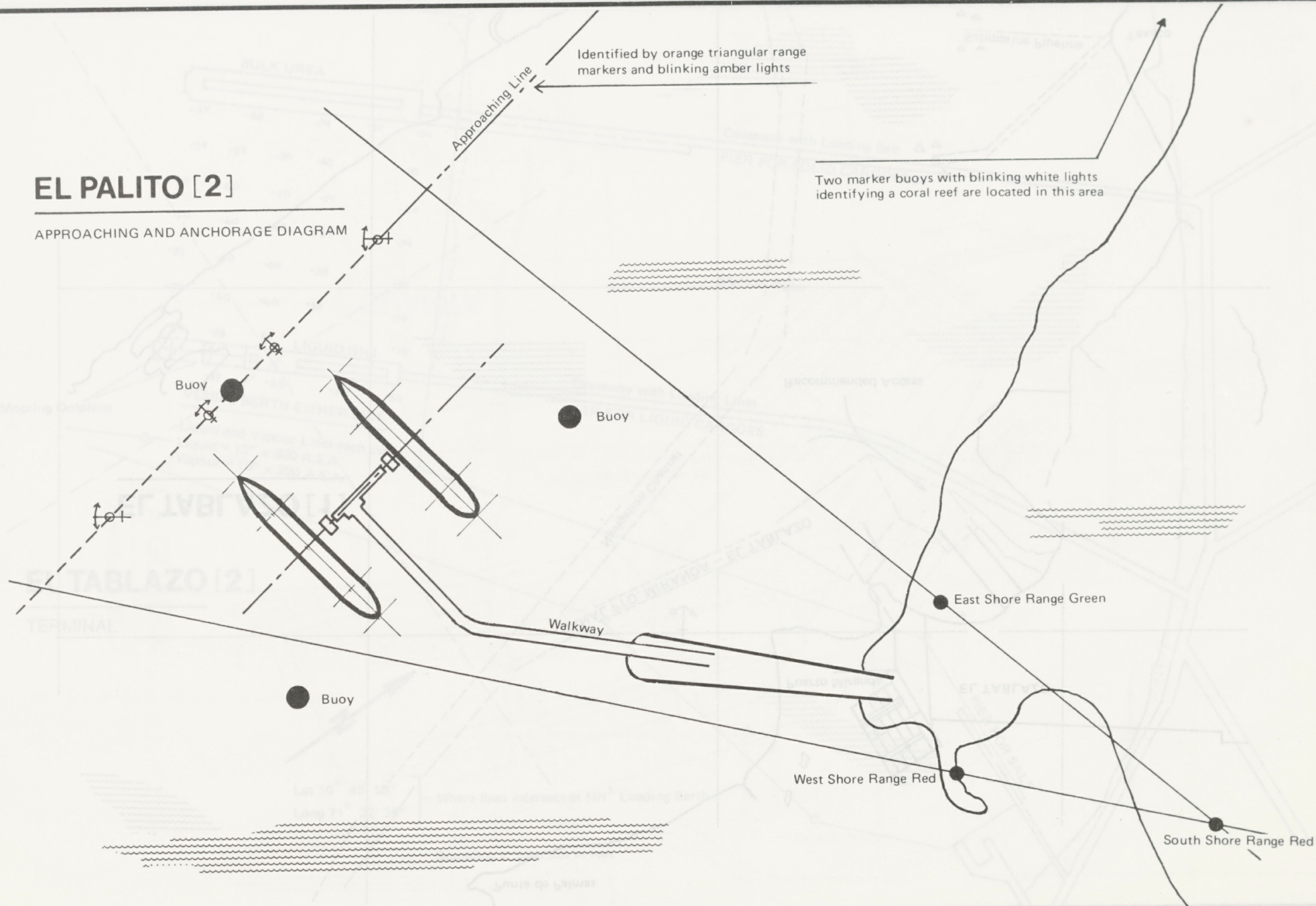
**EL PALITO [1]**

Mooring Diagram



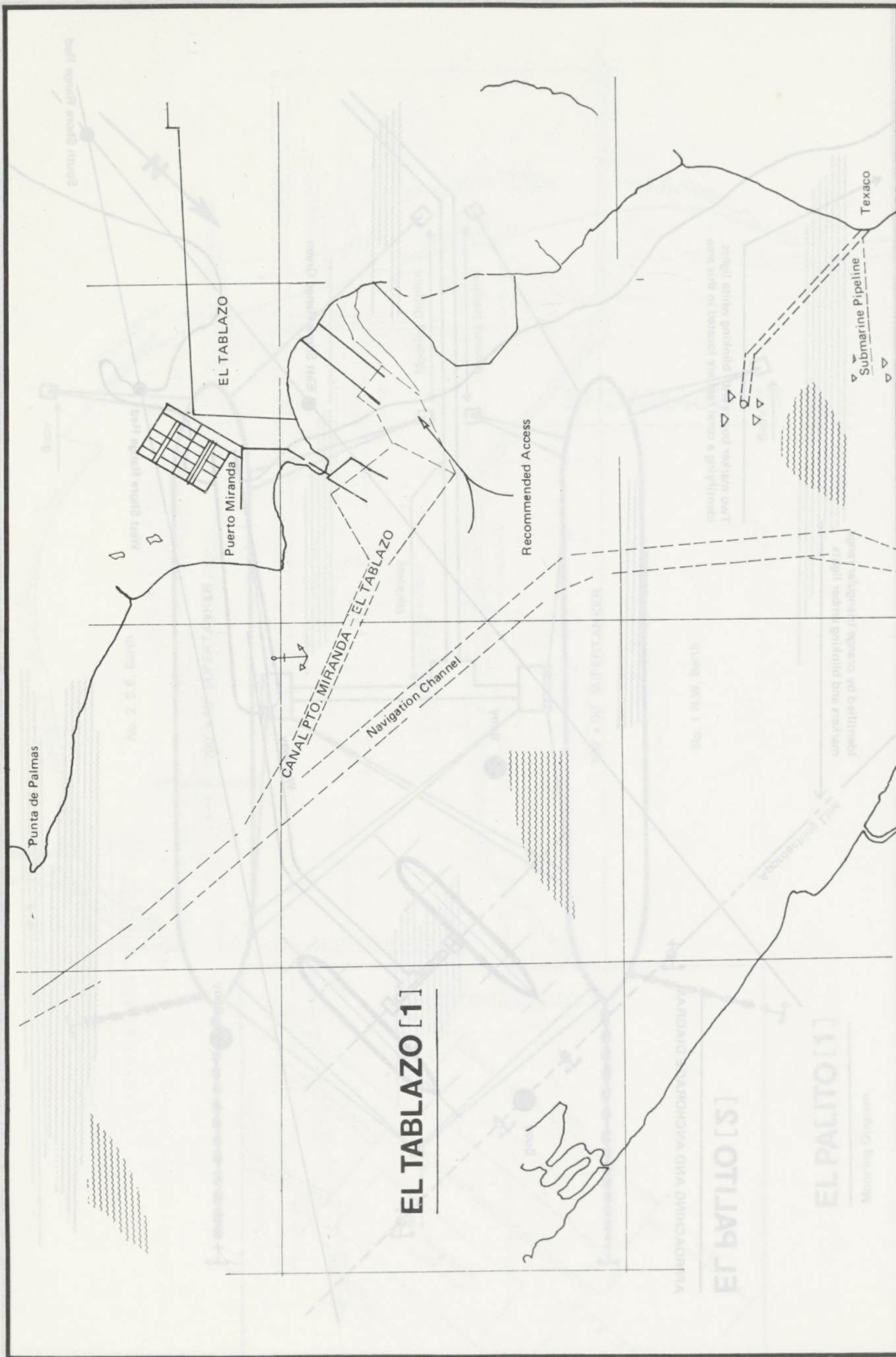
## EL PALITO [2]

APPROACHING AND ANCHORAGE DIAGRAM



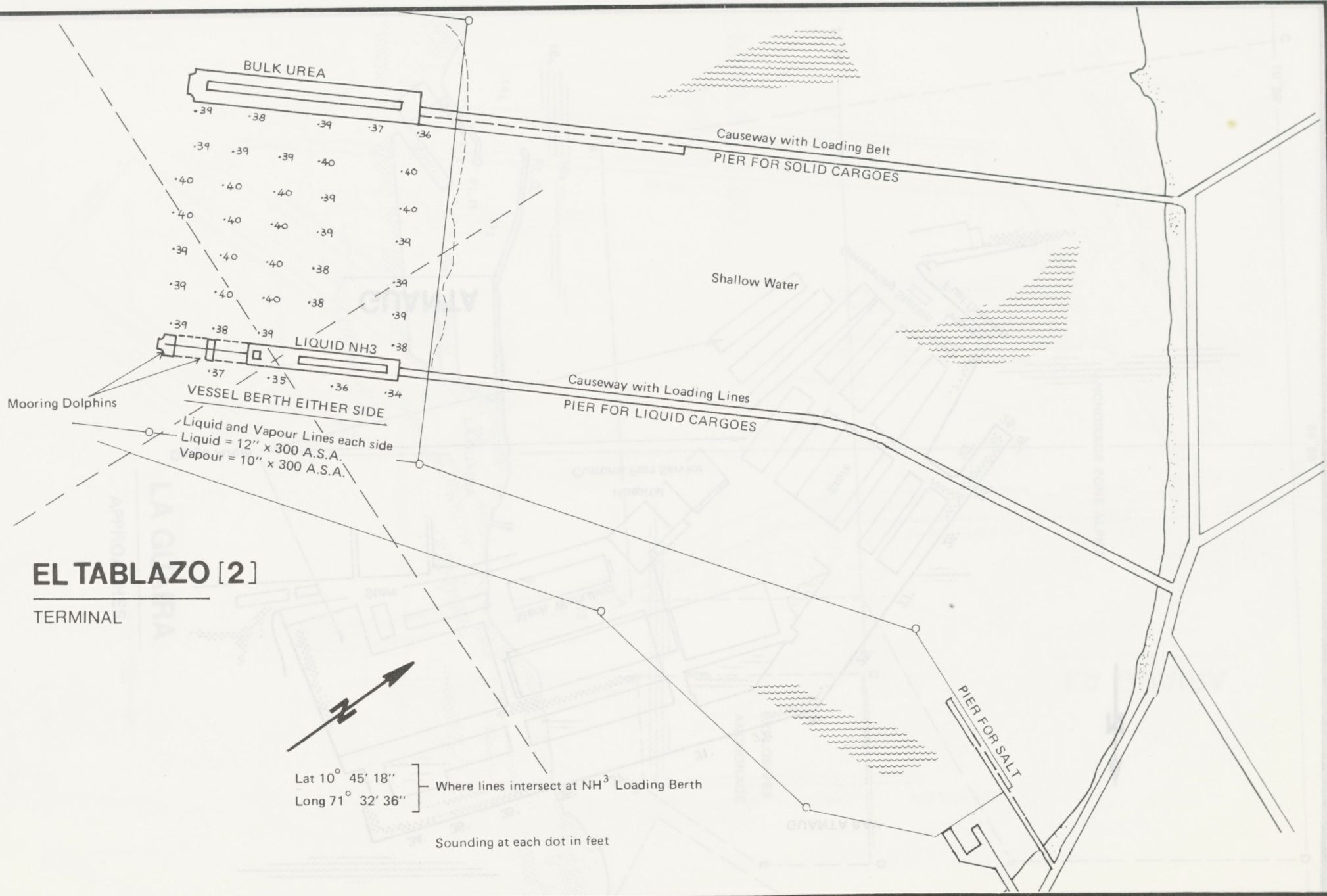
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## EL TABLAZO [2]

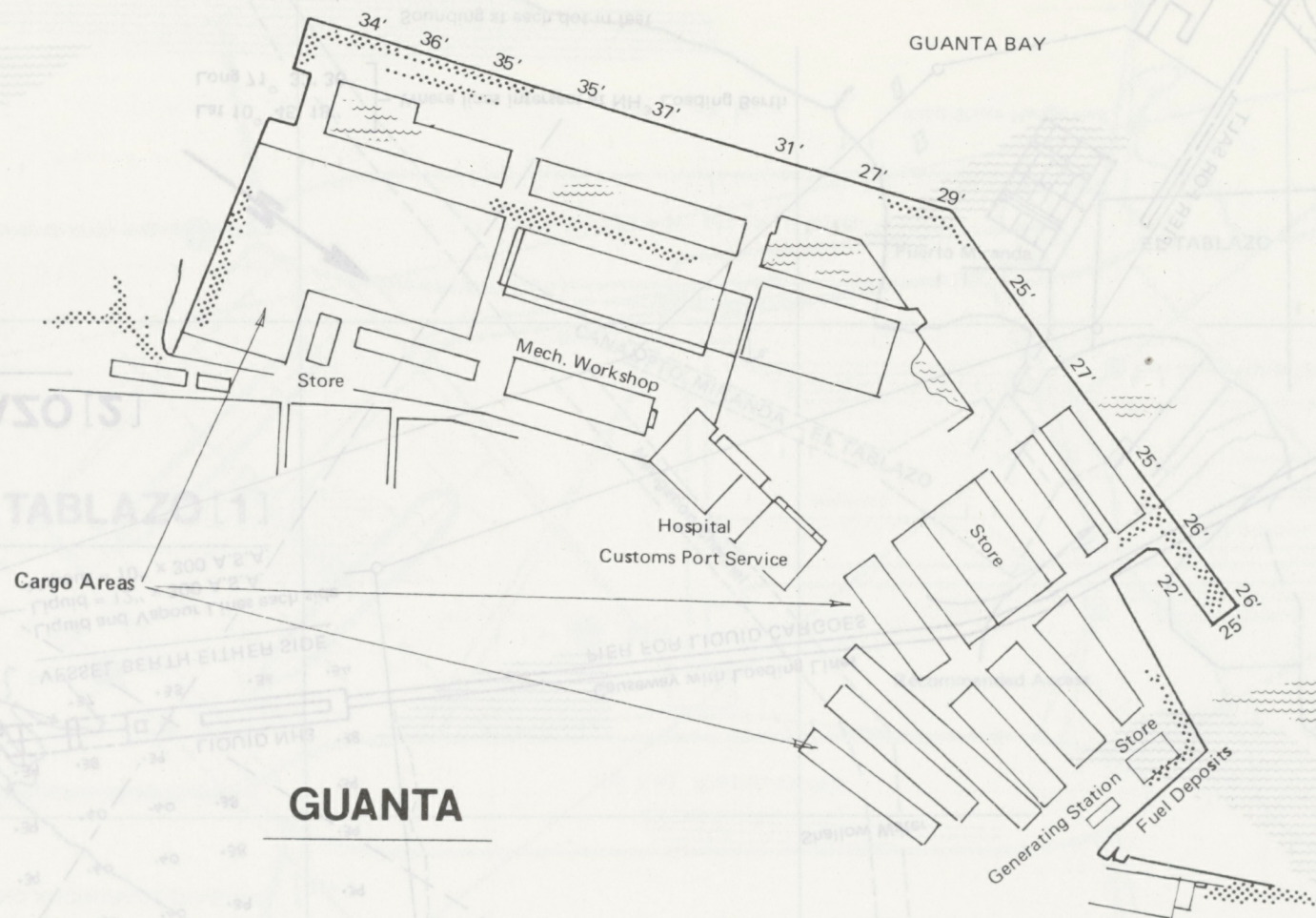
TERMINAL

Lat 10° 45' 18"  
Long 71° 32' 36" } Where lines intersect at NH<sub>3</sub> Loading Berth

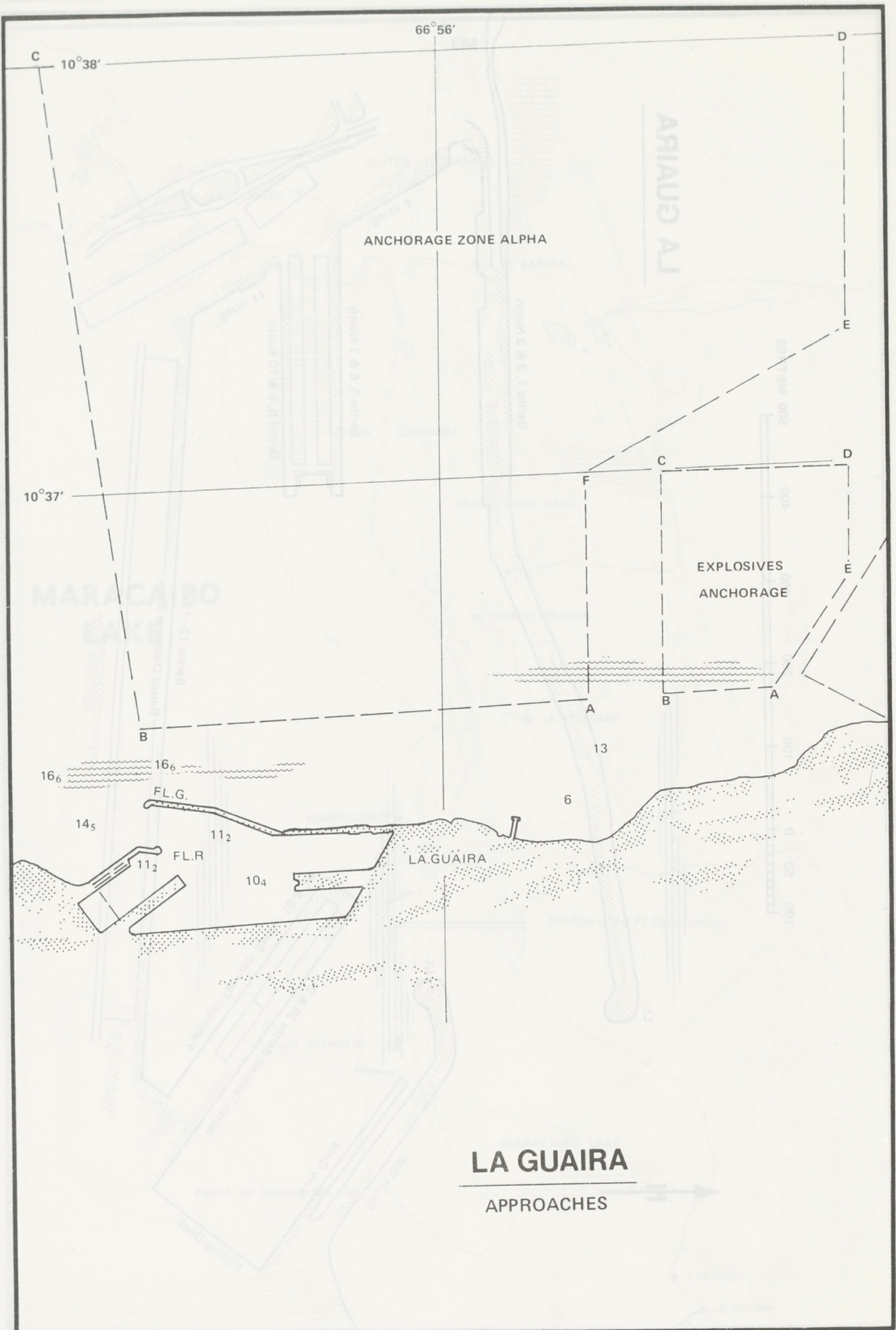
Sounding at each dot in feet

"Plan supplied by Ship's Master"

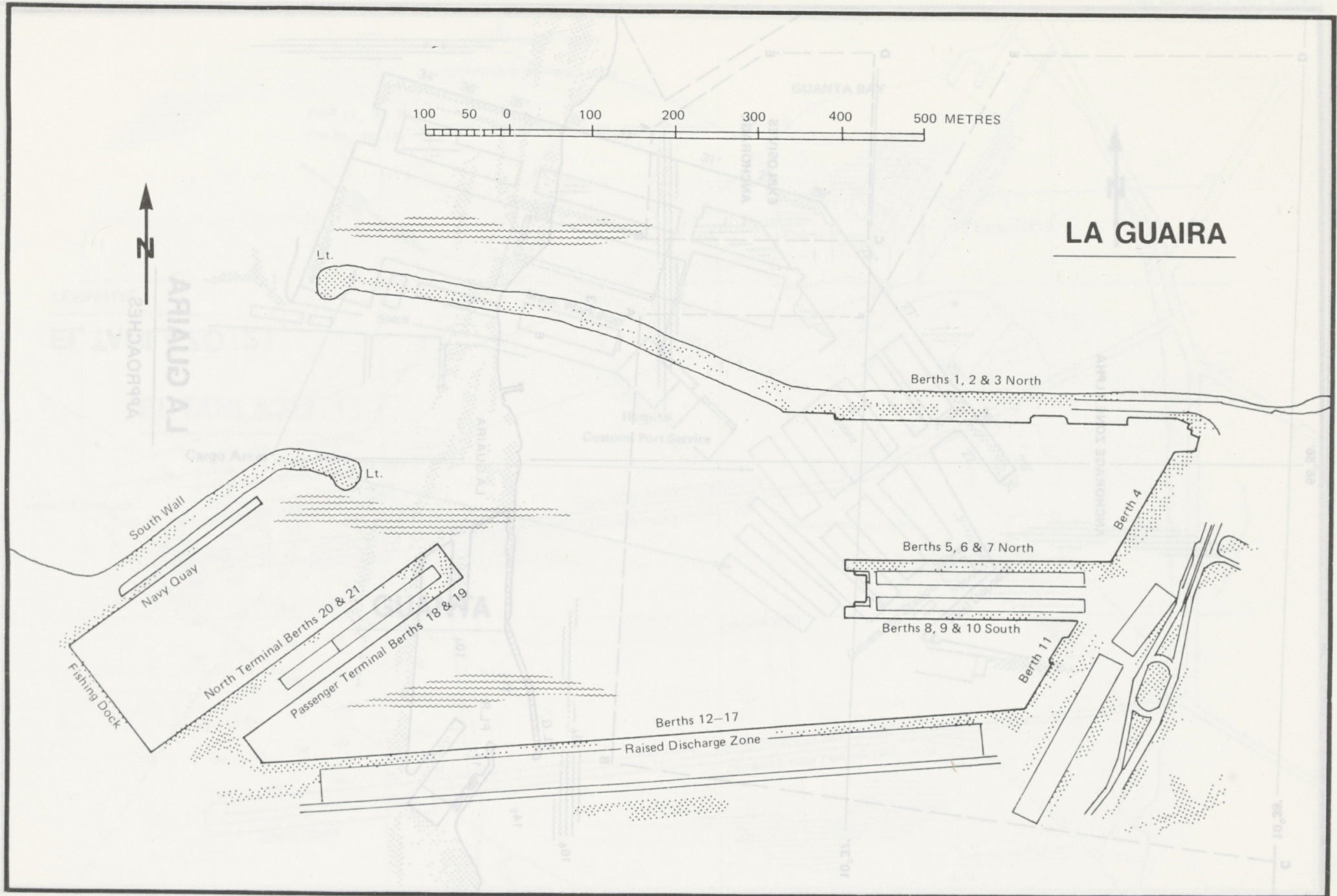








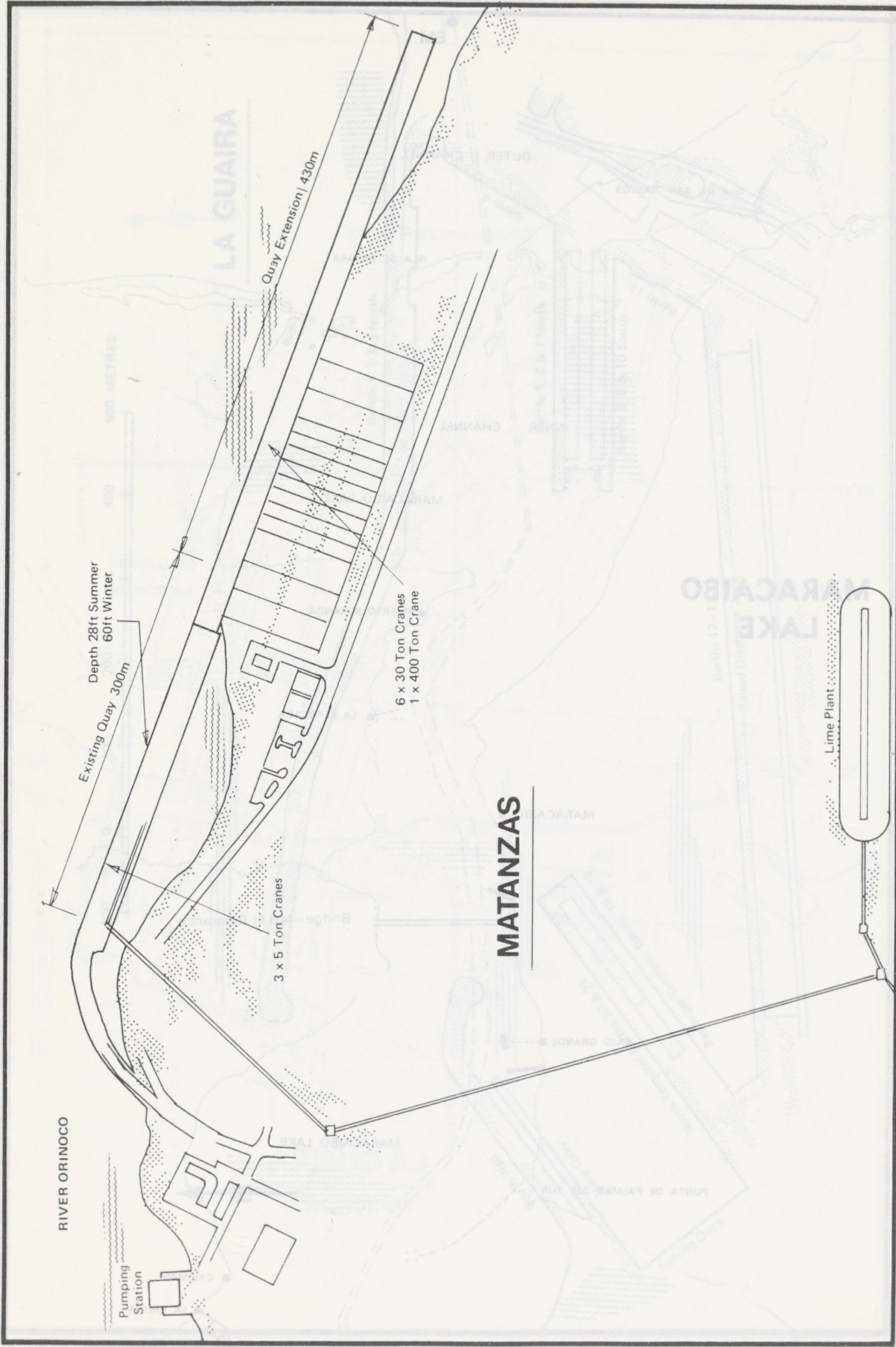












**MATANZAS**

RIVER ORINOCO

Pumping  
Station

Existing Quay 300m  
Depth 28ft Summer  
60ft Winter

3 x 5 Ton Cranes

6 x 30 Ton Cranes  
1 x 400 Ton Crane

Quay Extension | 430m

Lime Plant



# Puerto La Cruz

## LOADING DOCKS:

Total length of 1-4 Berths: (639.30 Metres)

Maximum Acceptable Draft at Berth (1-4) : 38'

Maximum Acceptable DWT at Berth (1-4) : 40,000 Ton

## BERTH No.5

Maximum Acceptable Draft : 55'

Maximum Acceptable DWT : 110,000 Ton

BERGANTING BAY

POZUELOS BAY

LOADING DOCKS

BERTH 1

BERTH 2

BERTH 3

BERTH 4

BERTH 5

Ballast Pits

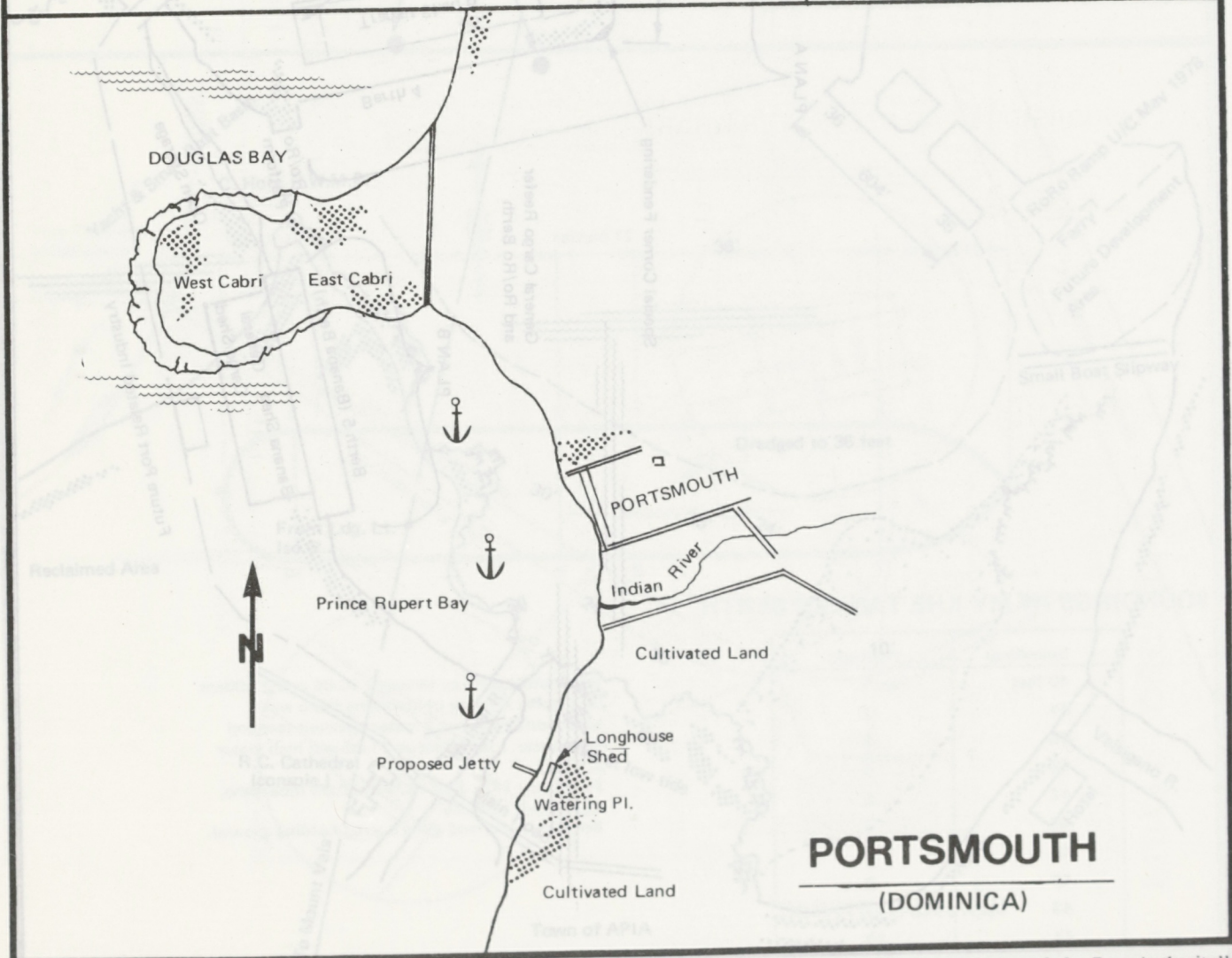
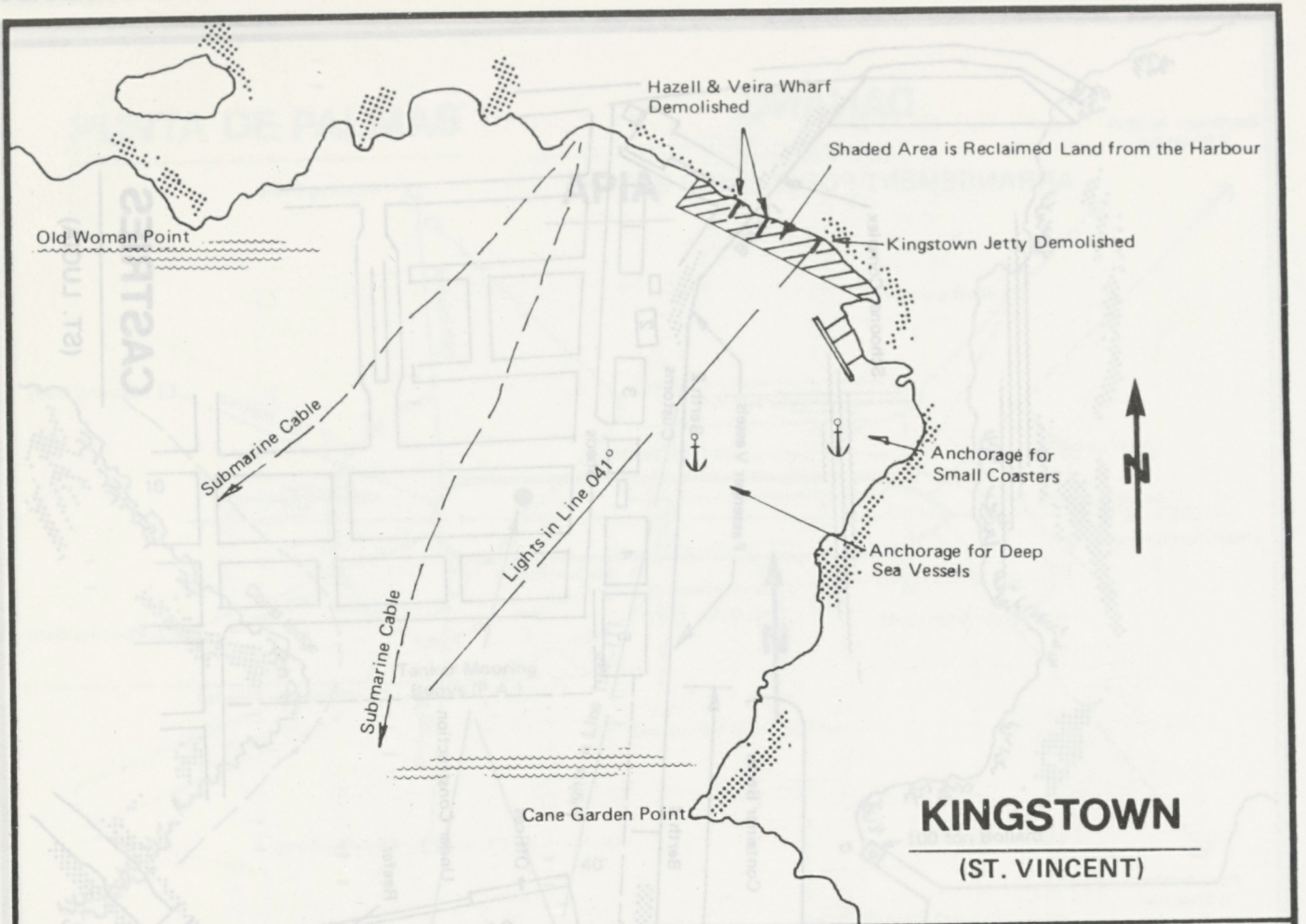
Refinery Products  
Loading Lines

DRY CARGO DOCKS

Crude Oil  
Loading Lines

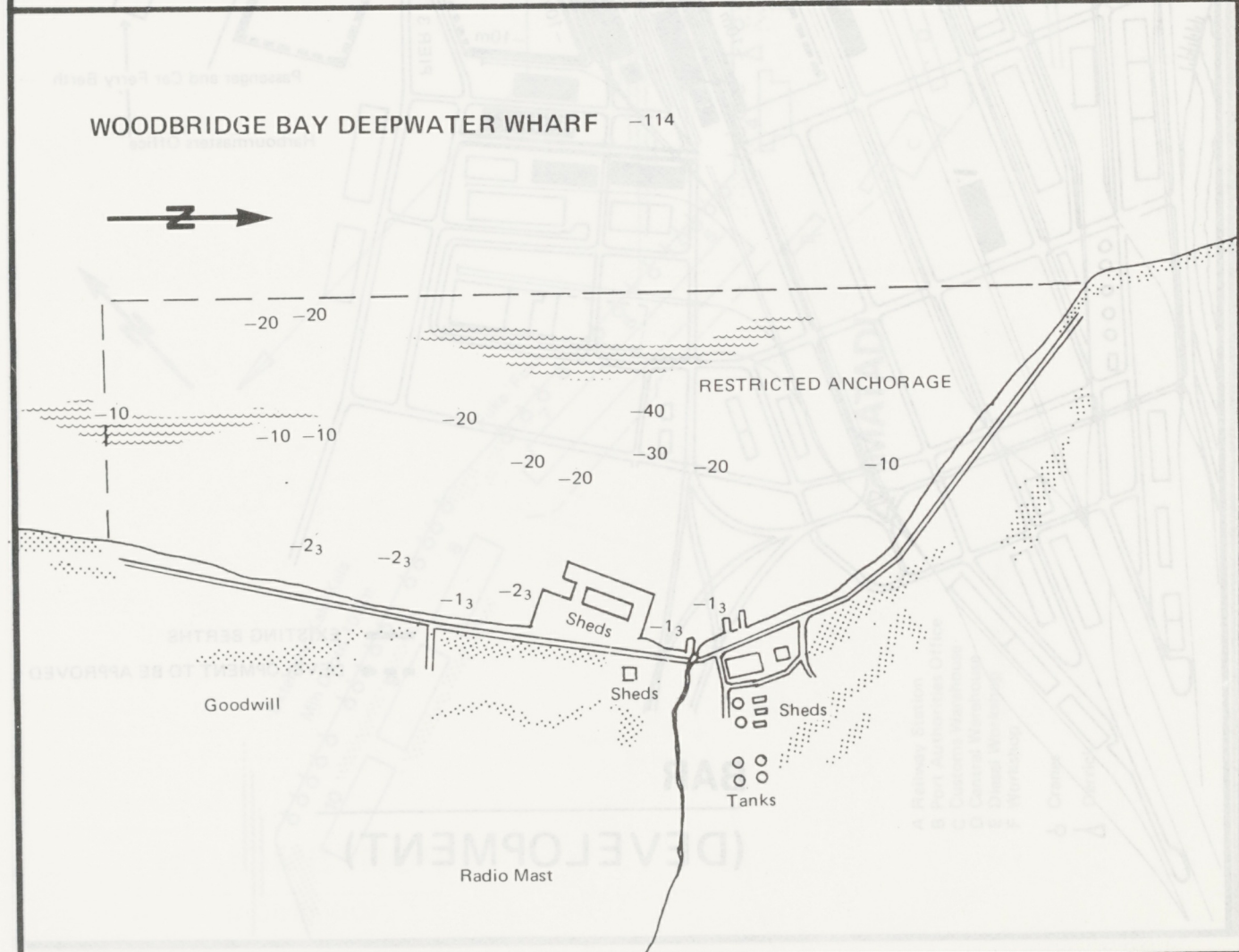
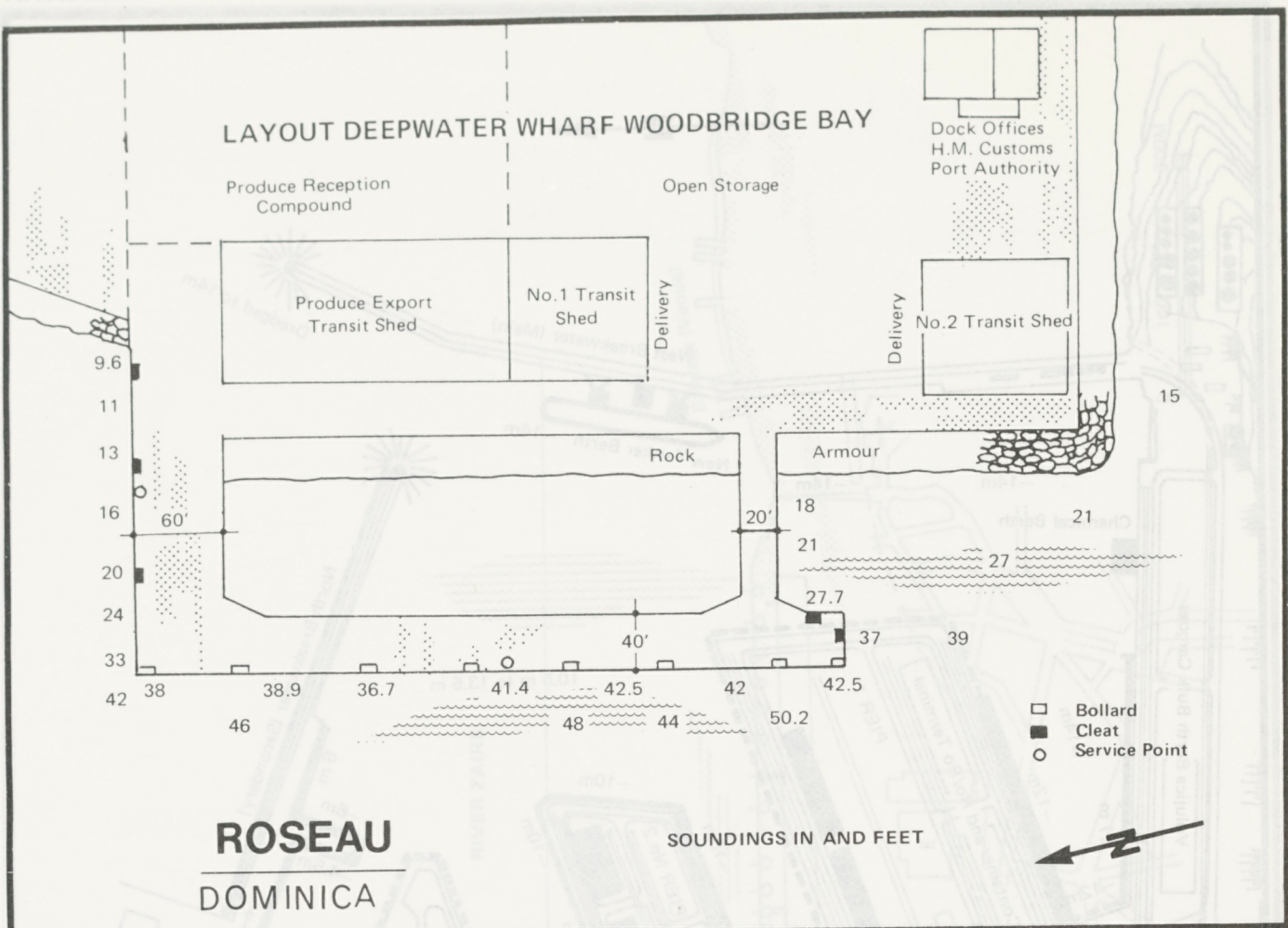
S.A. MENEVEN



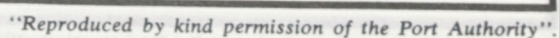


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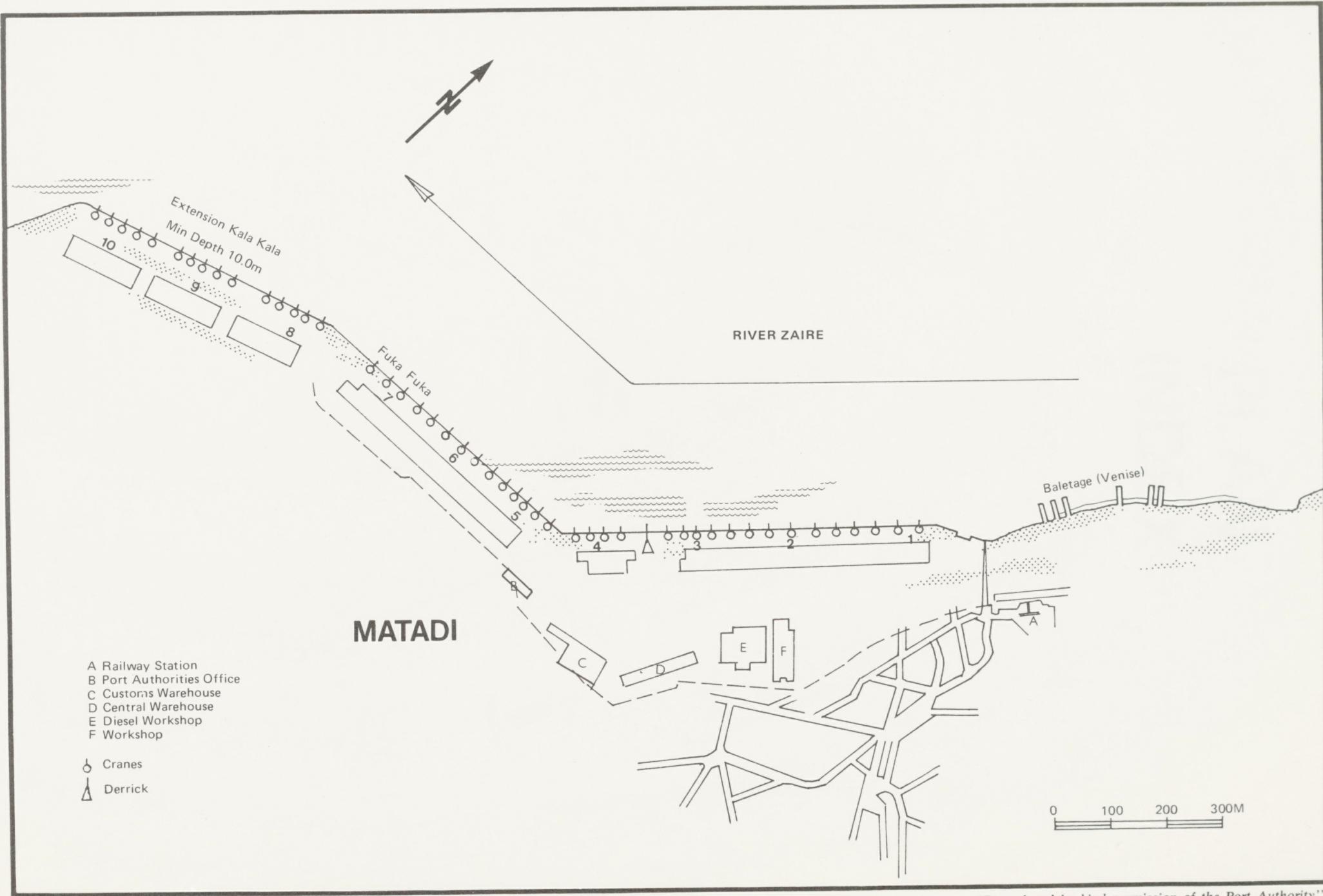












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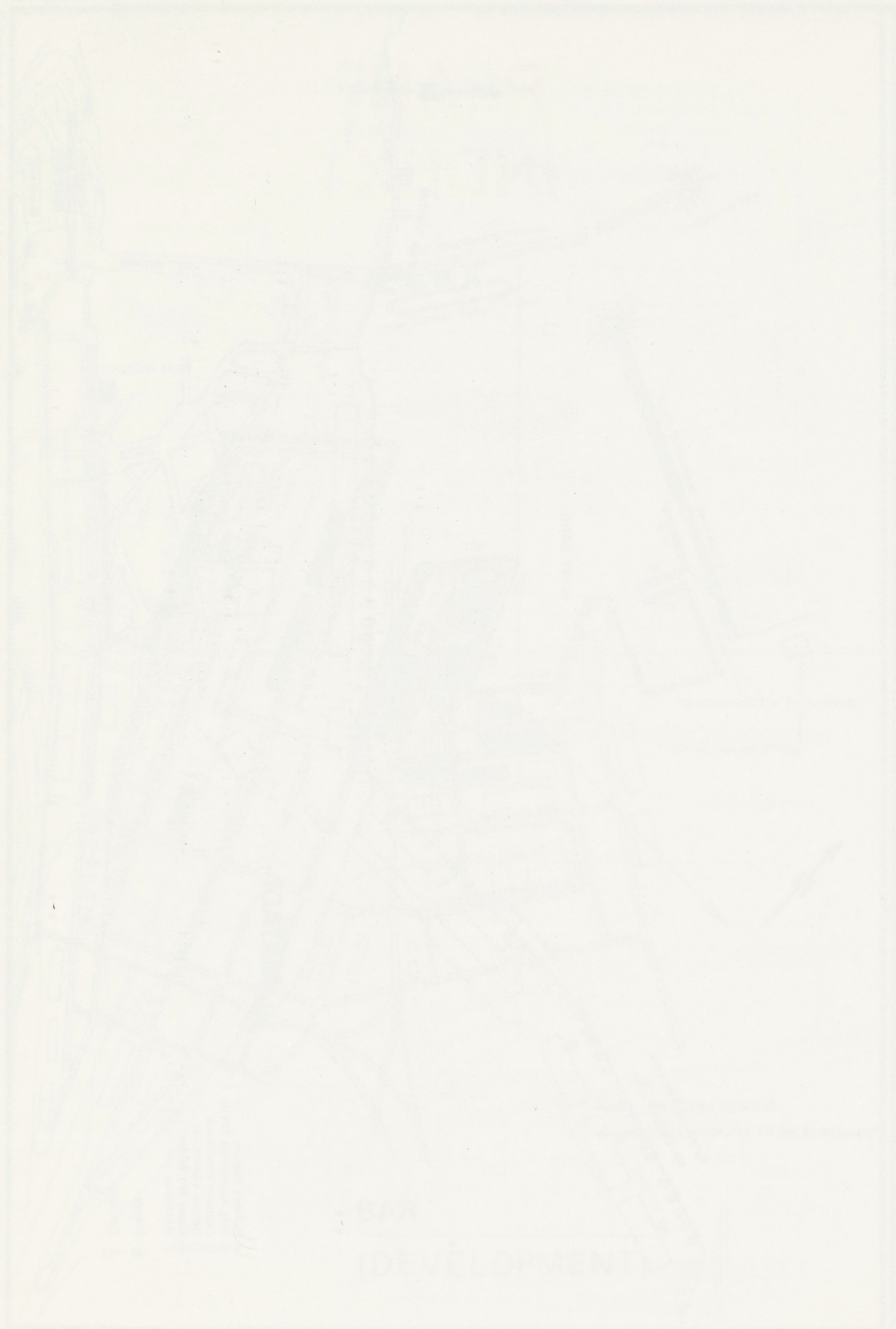






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[illegible]



# LATE PLANS

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CHILE

CONGO

FRANCE

IRAN

IRELAND

ITALY

Caraquet

Shippegan

Iquique

San Vicente

Djeno

Fecamp

Lavan Island

Castletown Bere

Ancona

INDIA

KOREA (SOUTH)

MEXICO

PANAMA

PORTUGAL

SAUDI ARABIA

TURKEY

U.S.A.

Paradip

Mukho

San Carlos

Almirante

Vacamonte

Sines

Ras Tanura/Ju'Aymah

Golovasi

Everett

Wharf East is Connected  
to Pierhead by Triangular  
Shoal Bridge and Docking

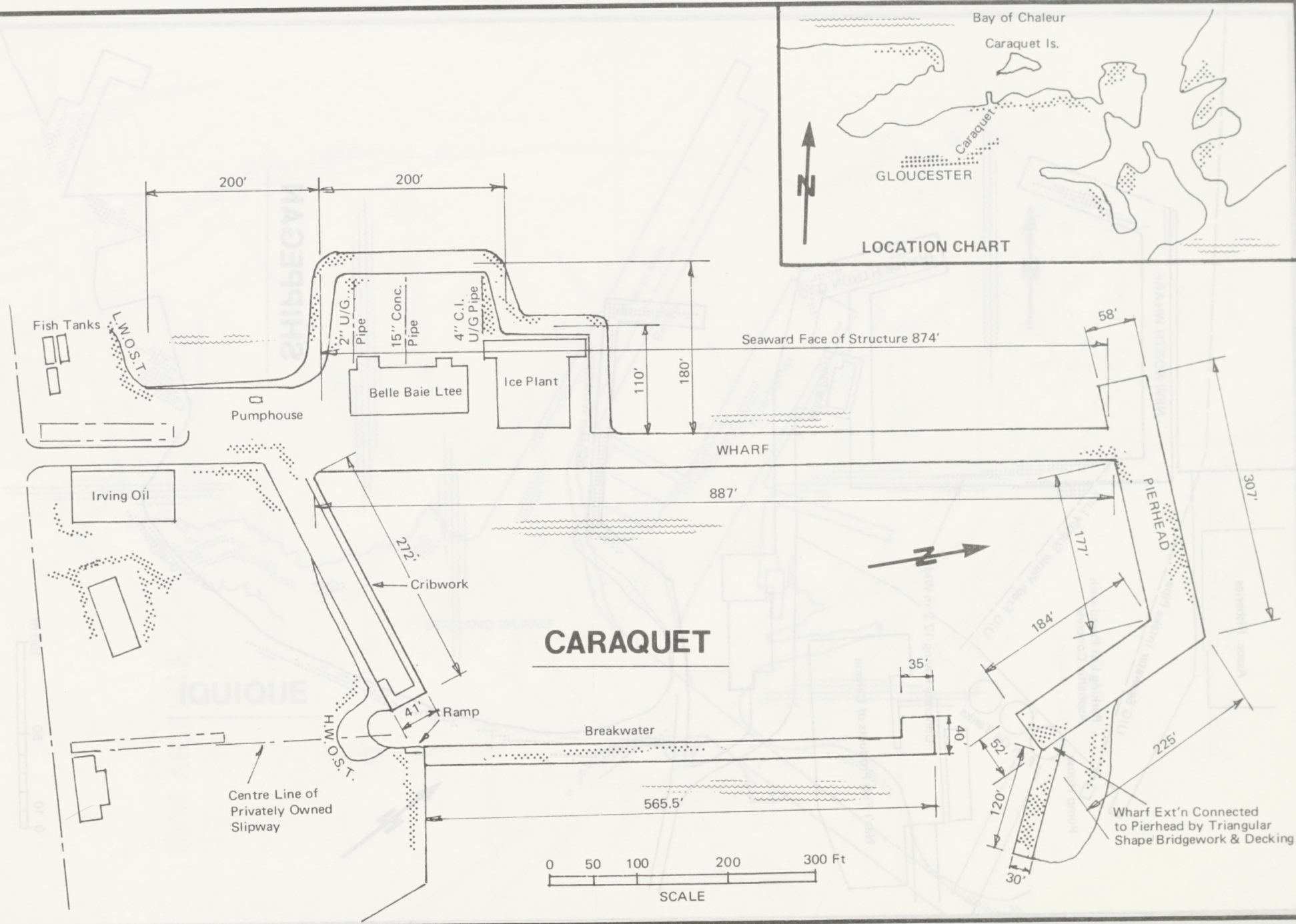


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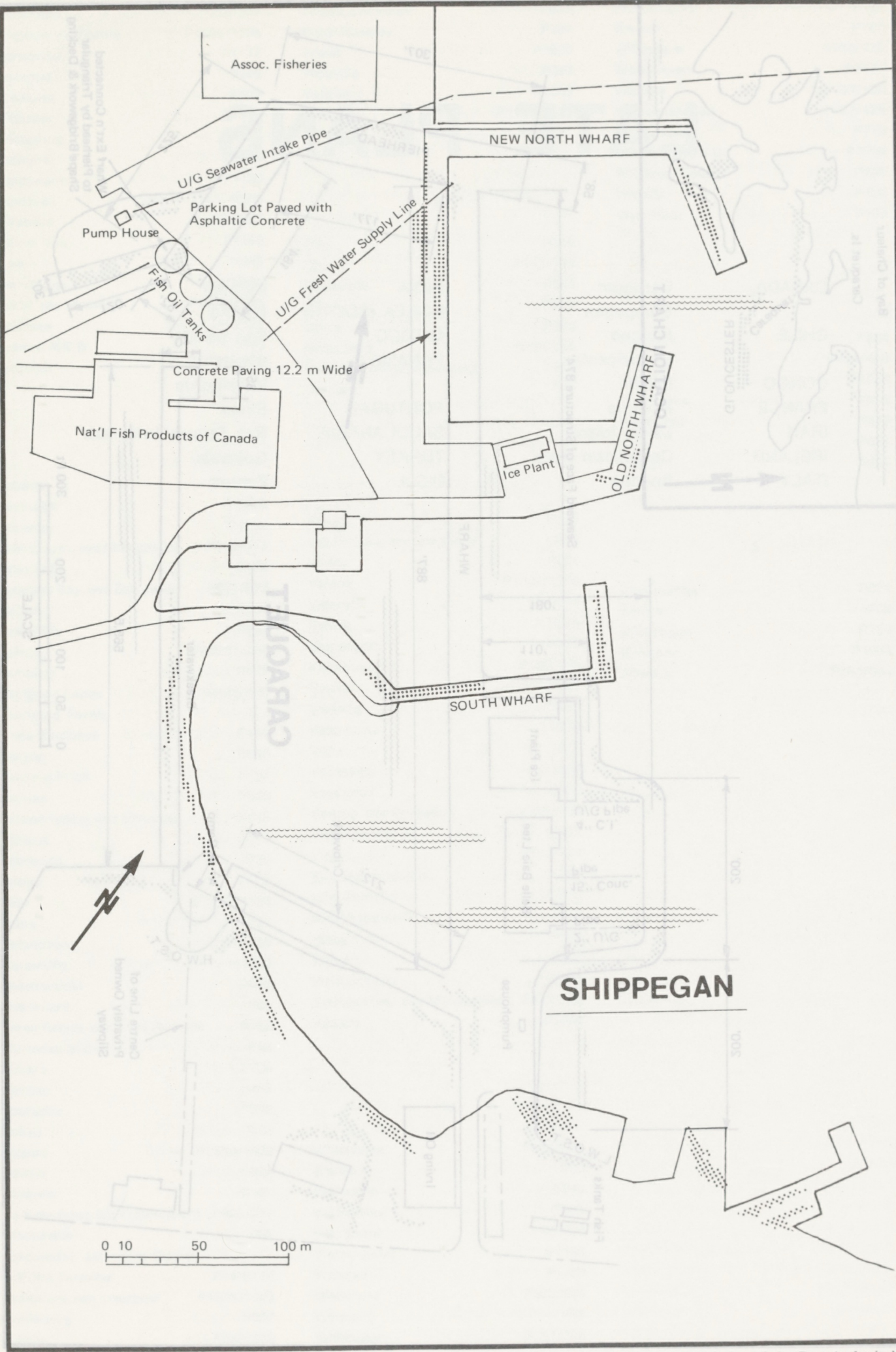






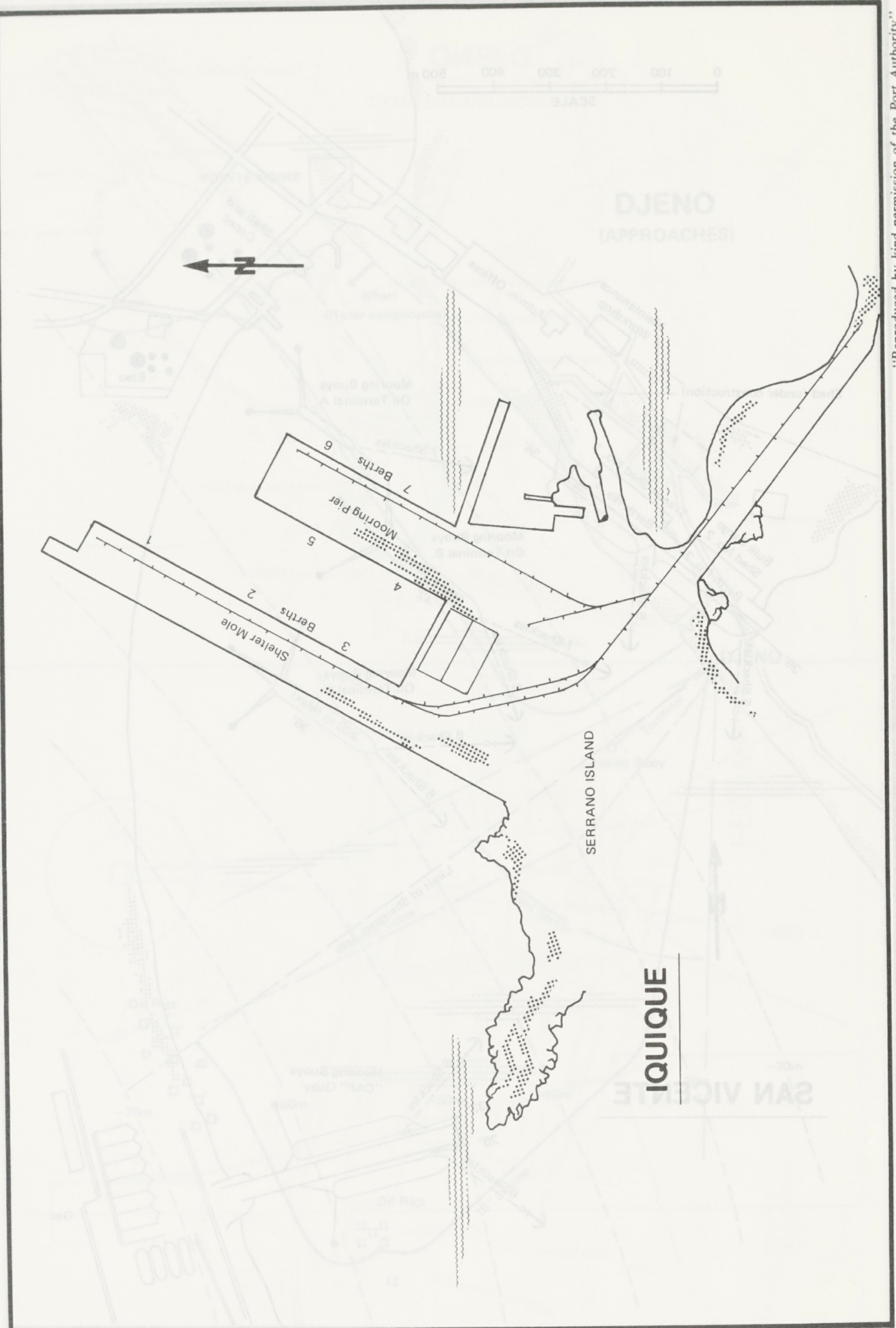




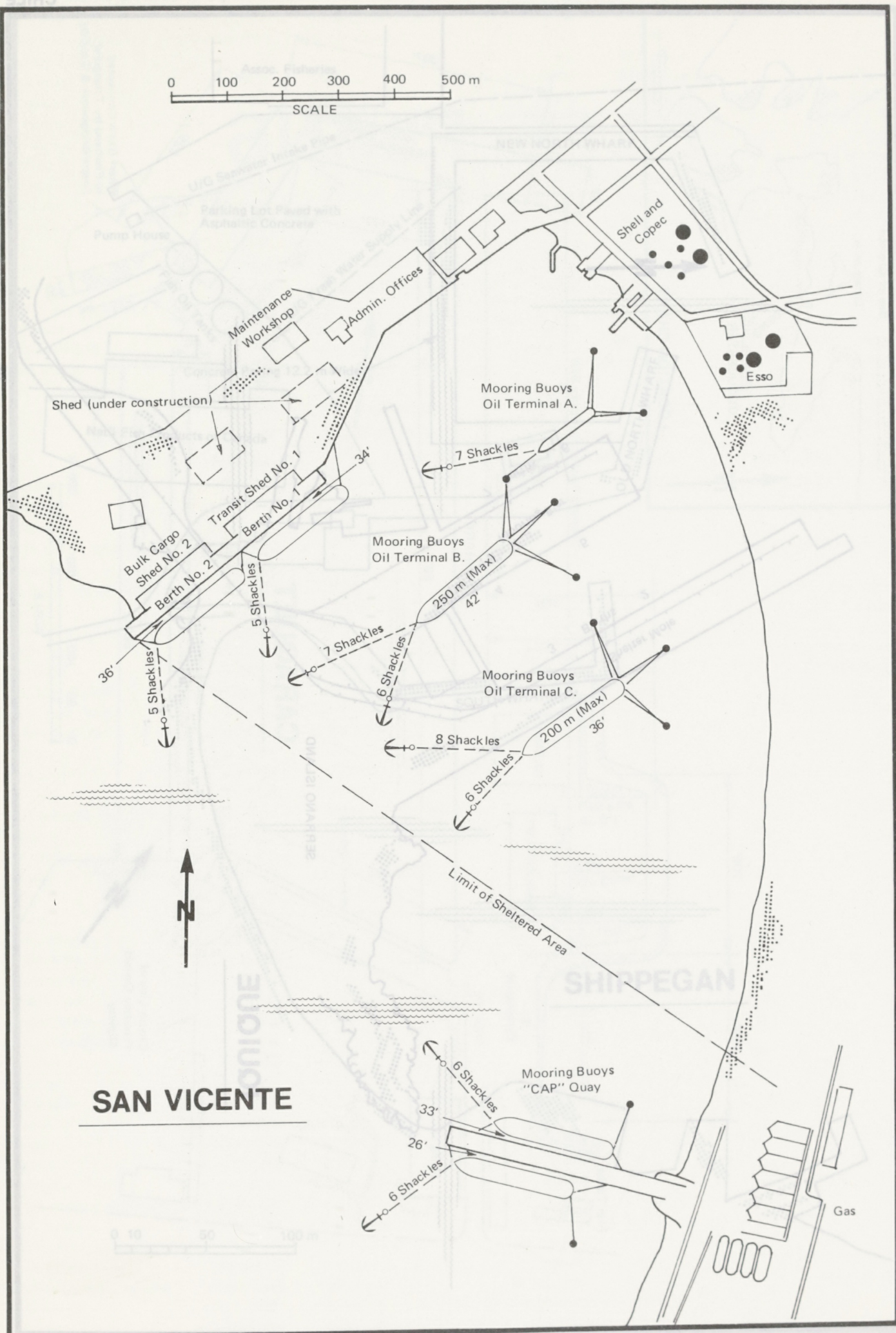


**SHIPPEGAN**



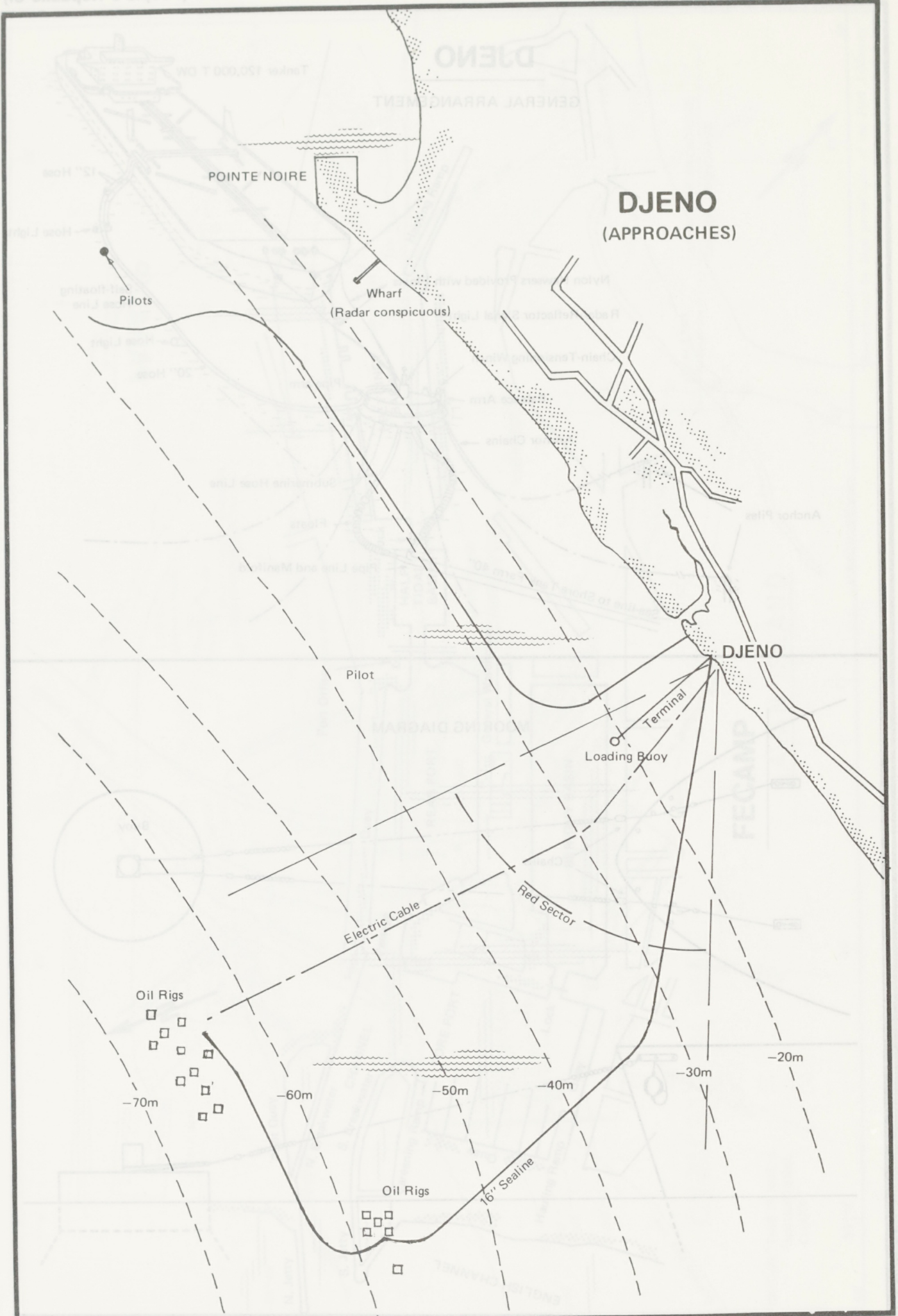






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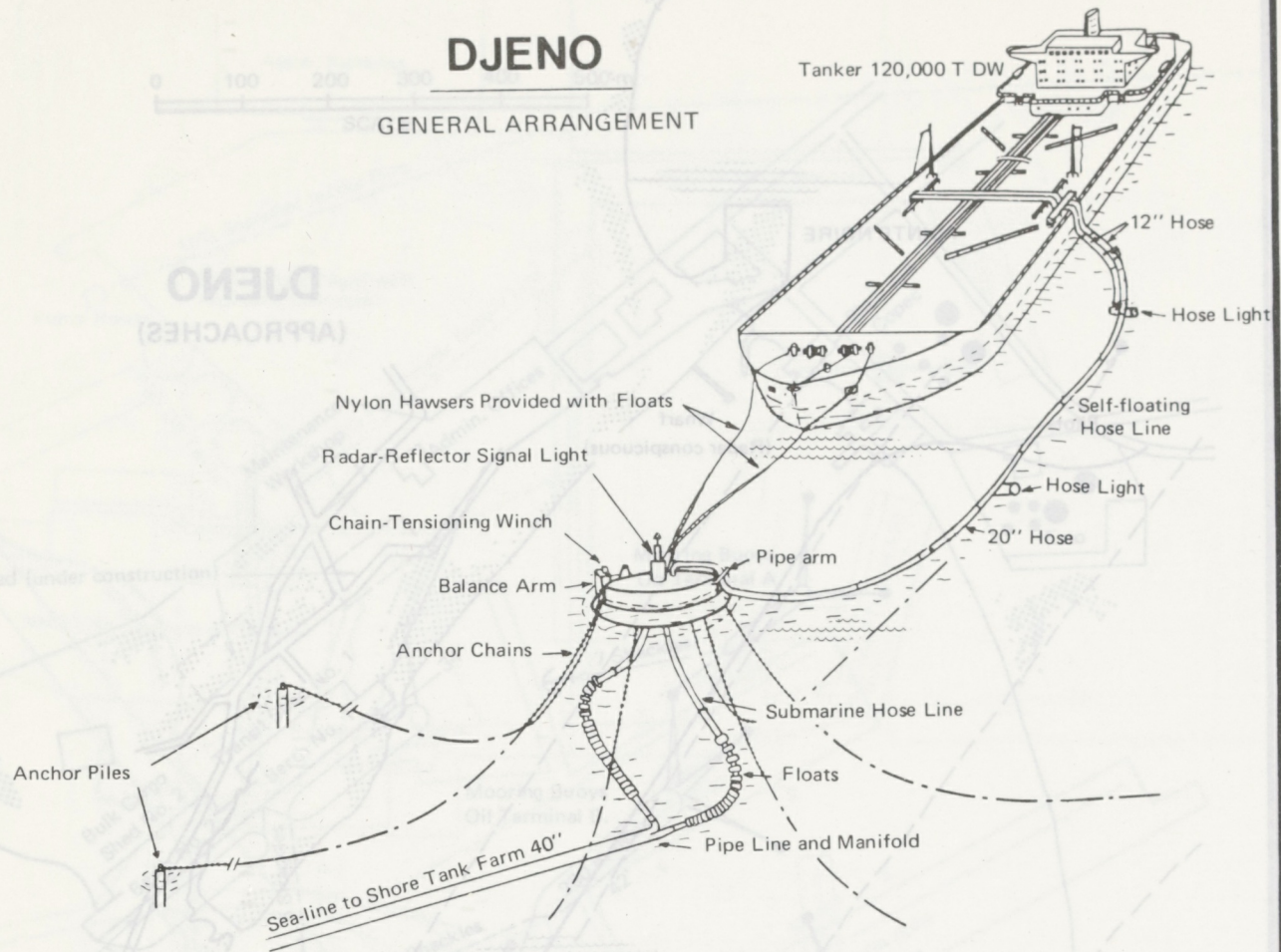




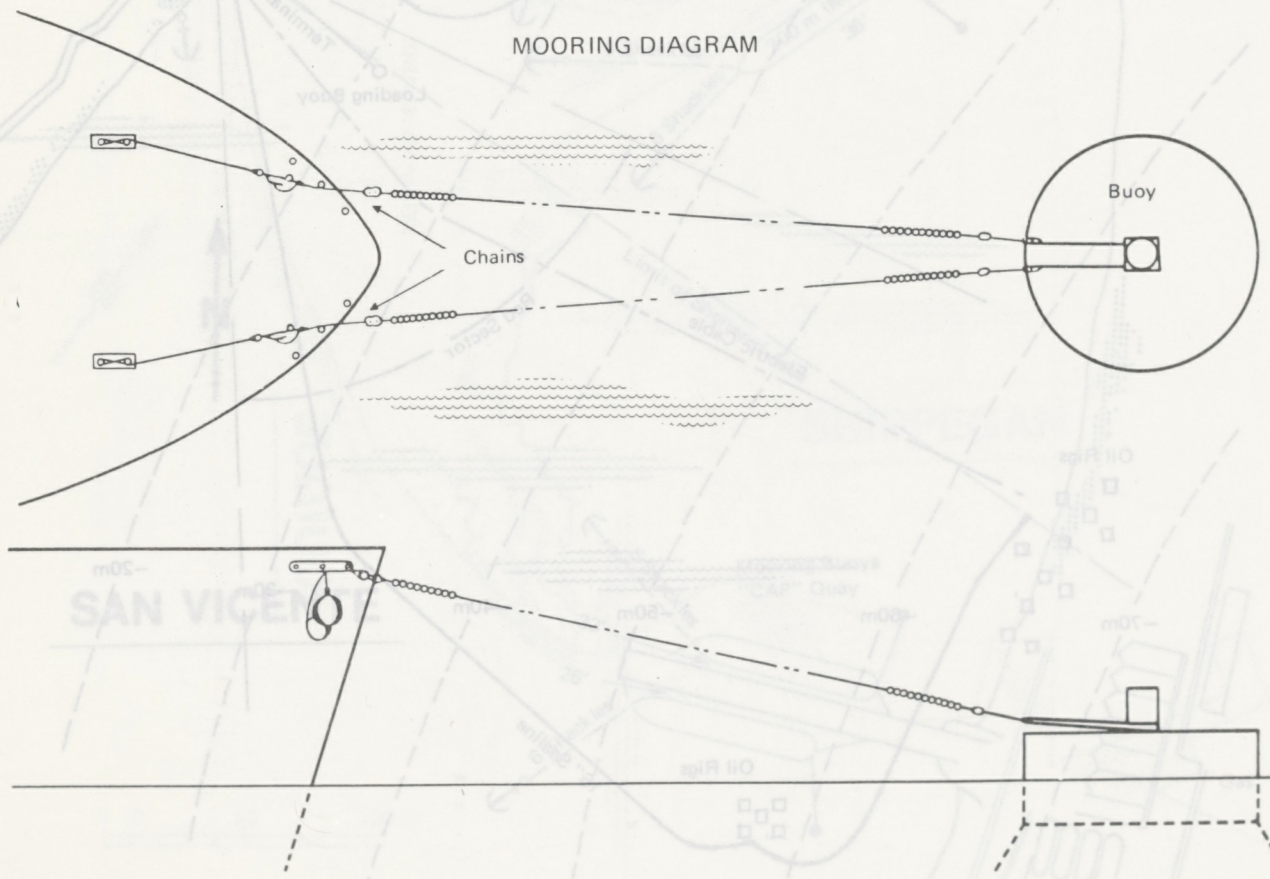


# DJENO

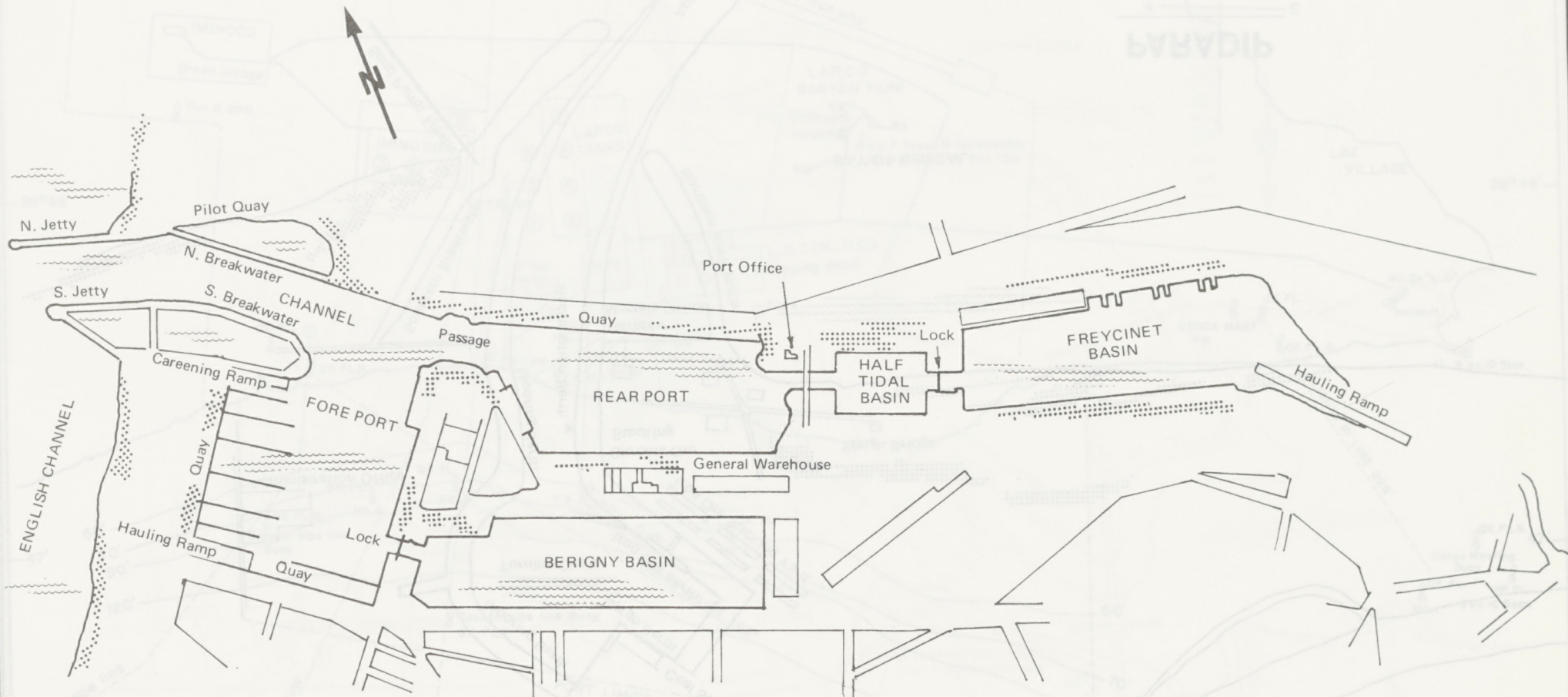
## GENERAL ARRANGEMENT



## MOORING DIAGRAM





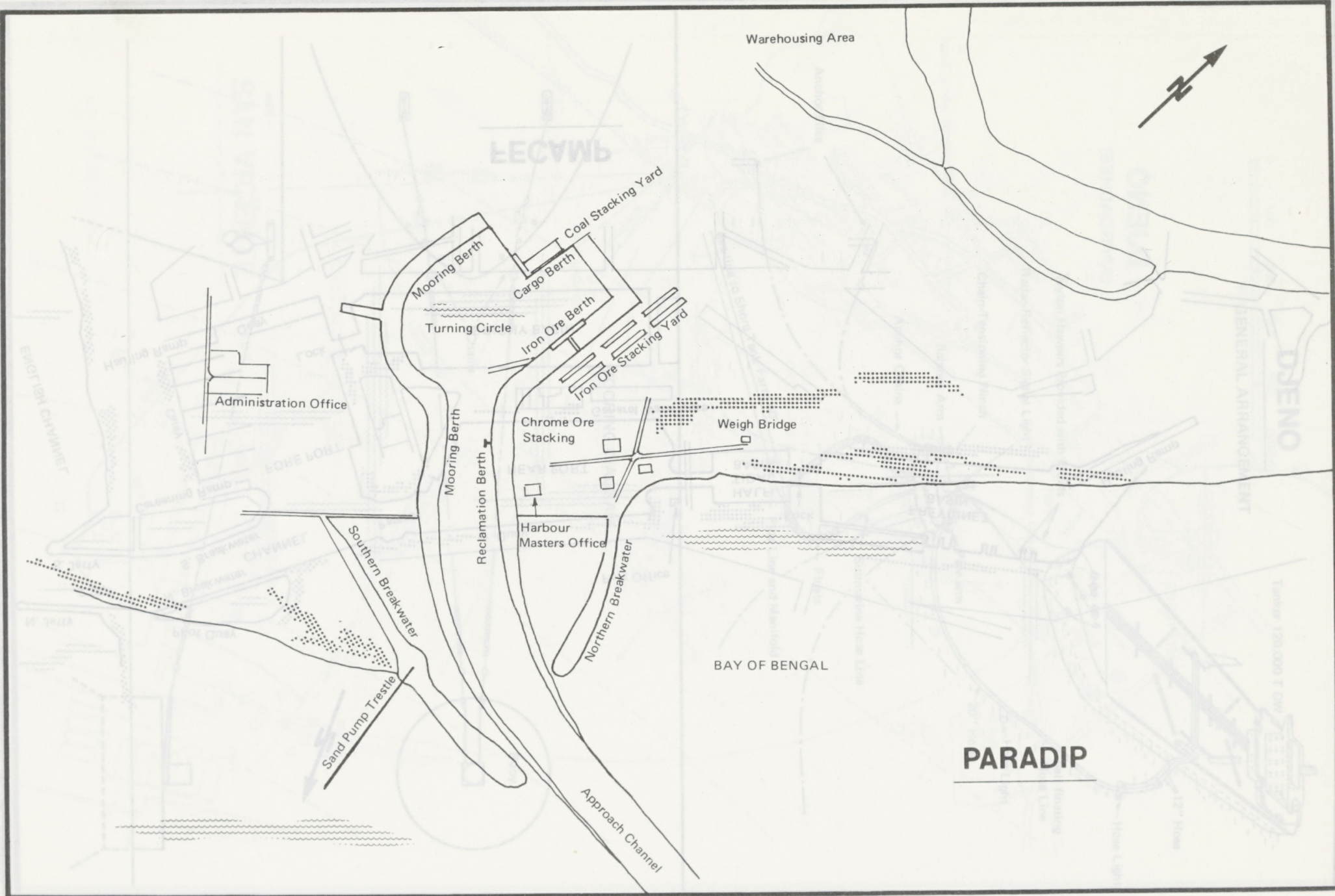


## FECAMP

CAUTION "THIS IS NOT A  
NAVIGATIONAL  
CHART"

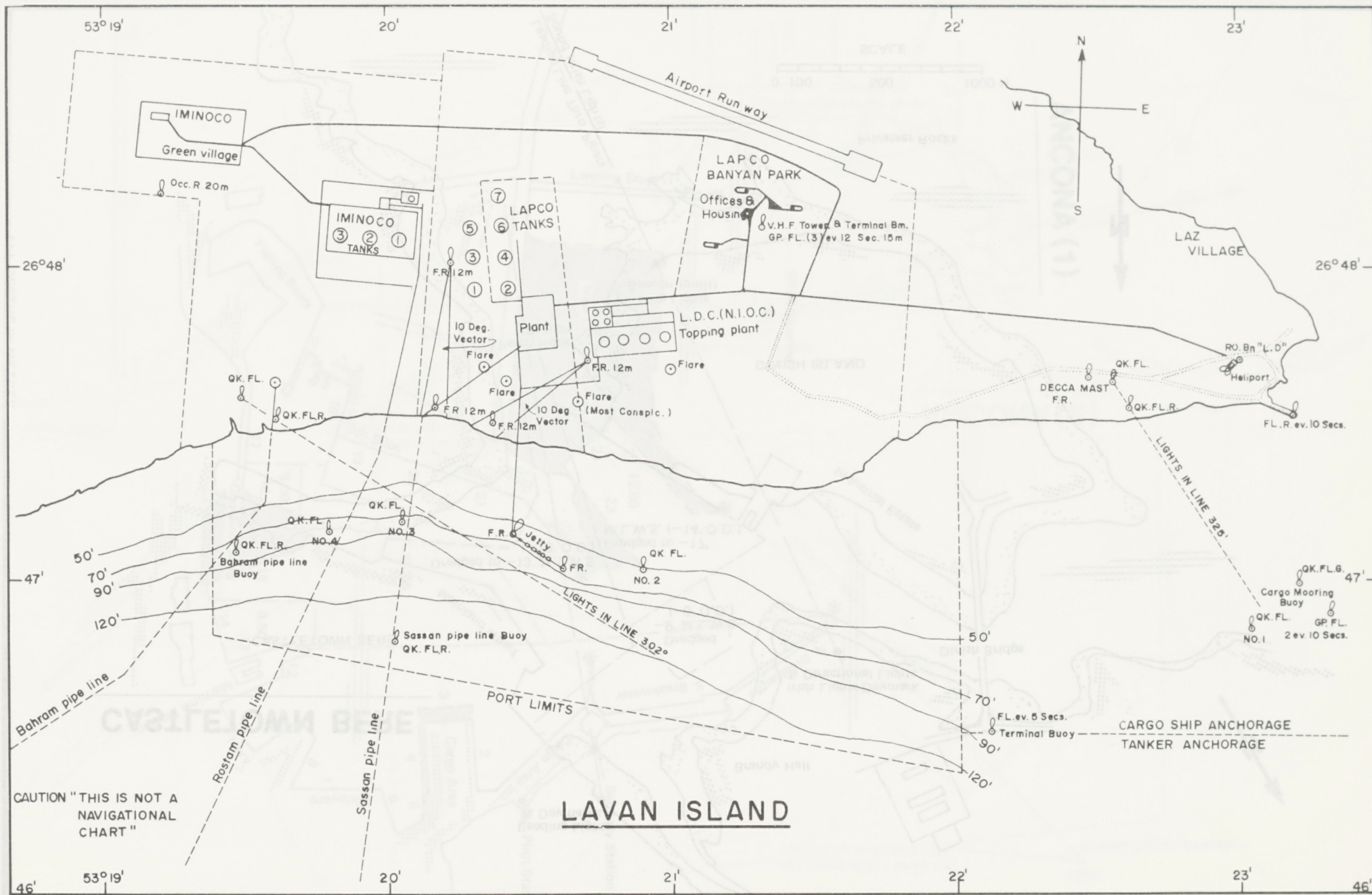
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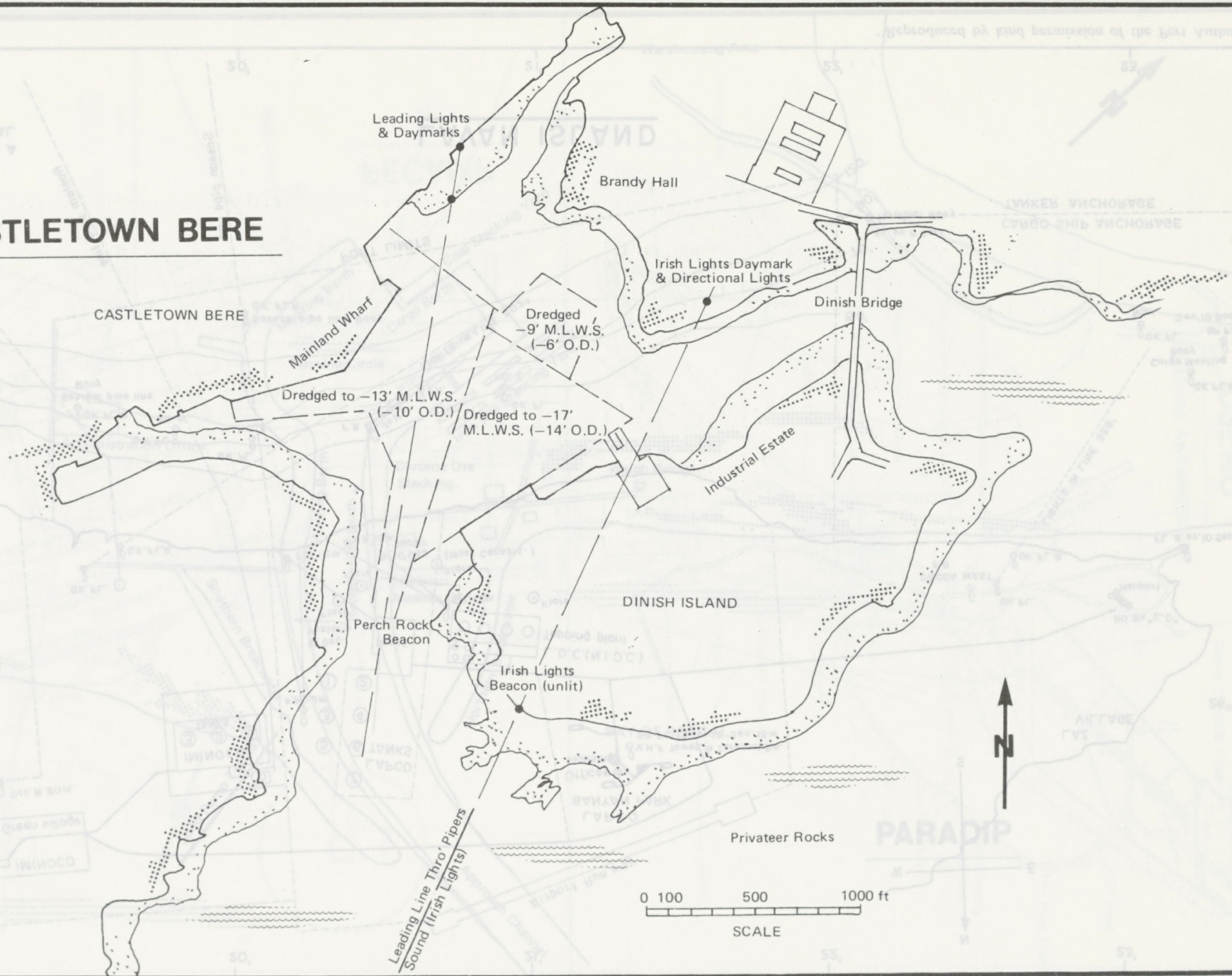
# PARADIP







# CASTLETOWN BERE



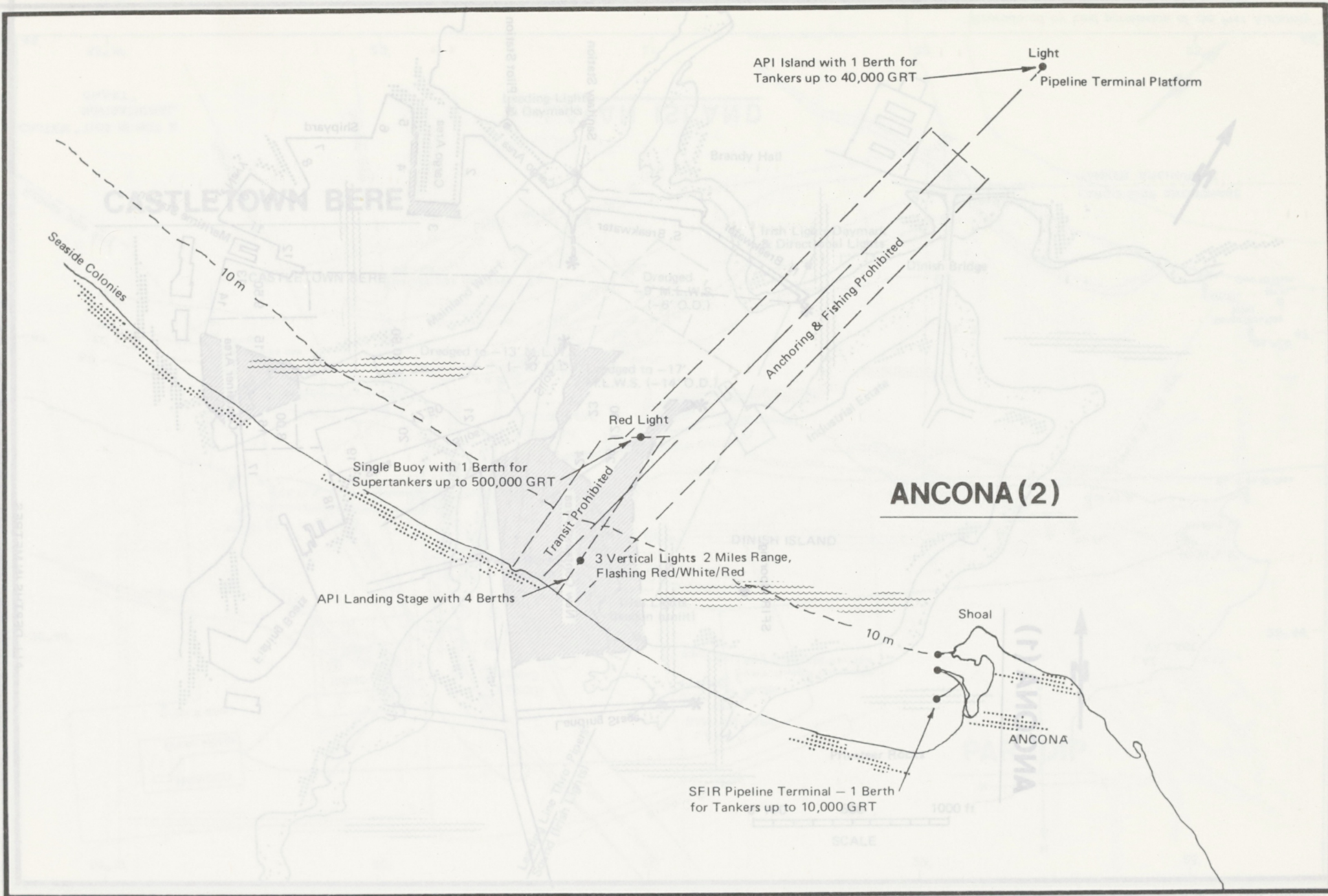


# ANCONA (1)

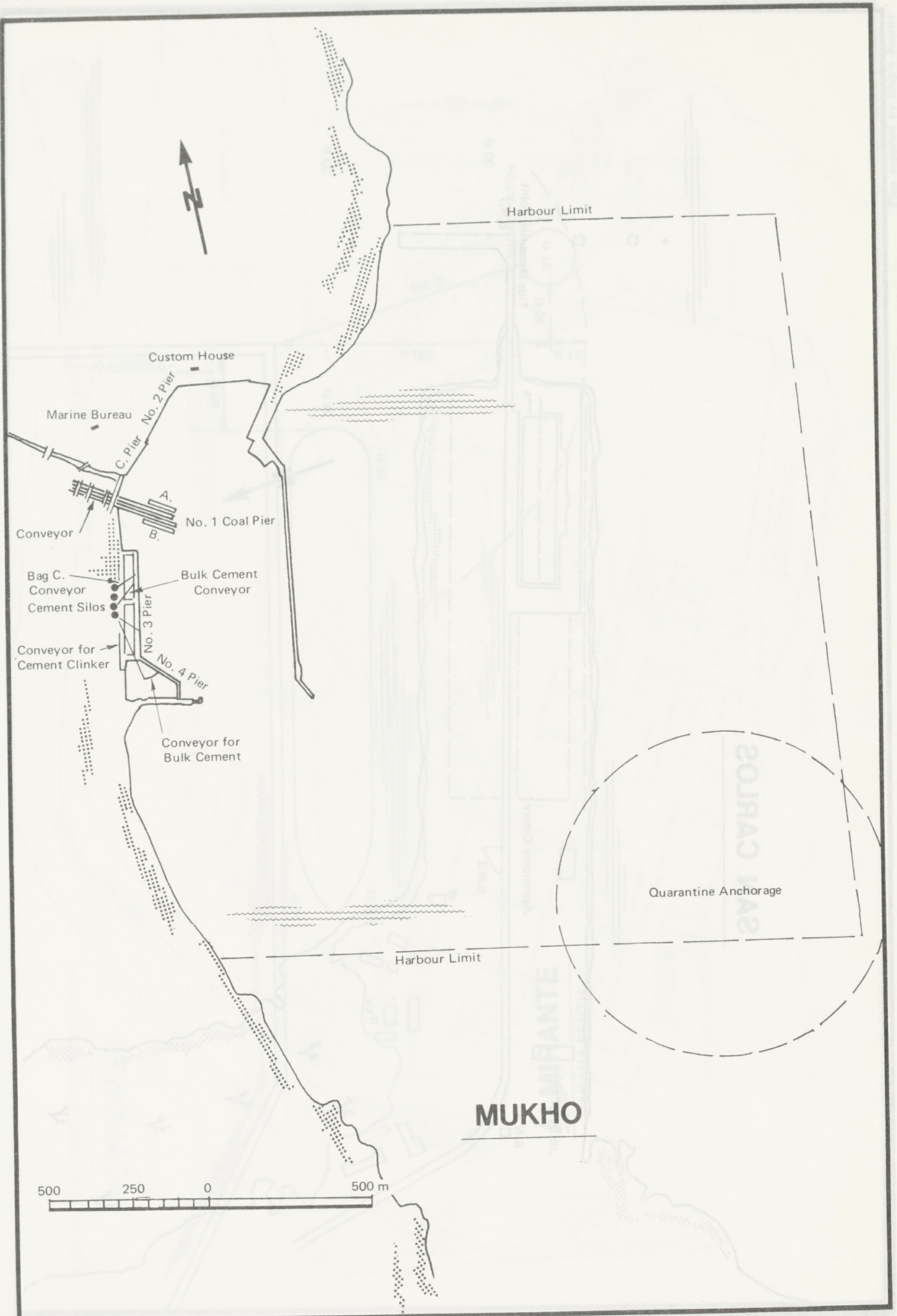


ALL DEPTHS IN METRES

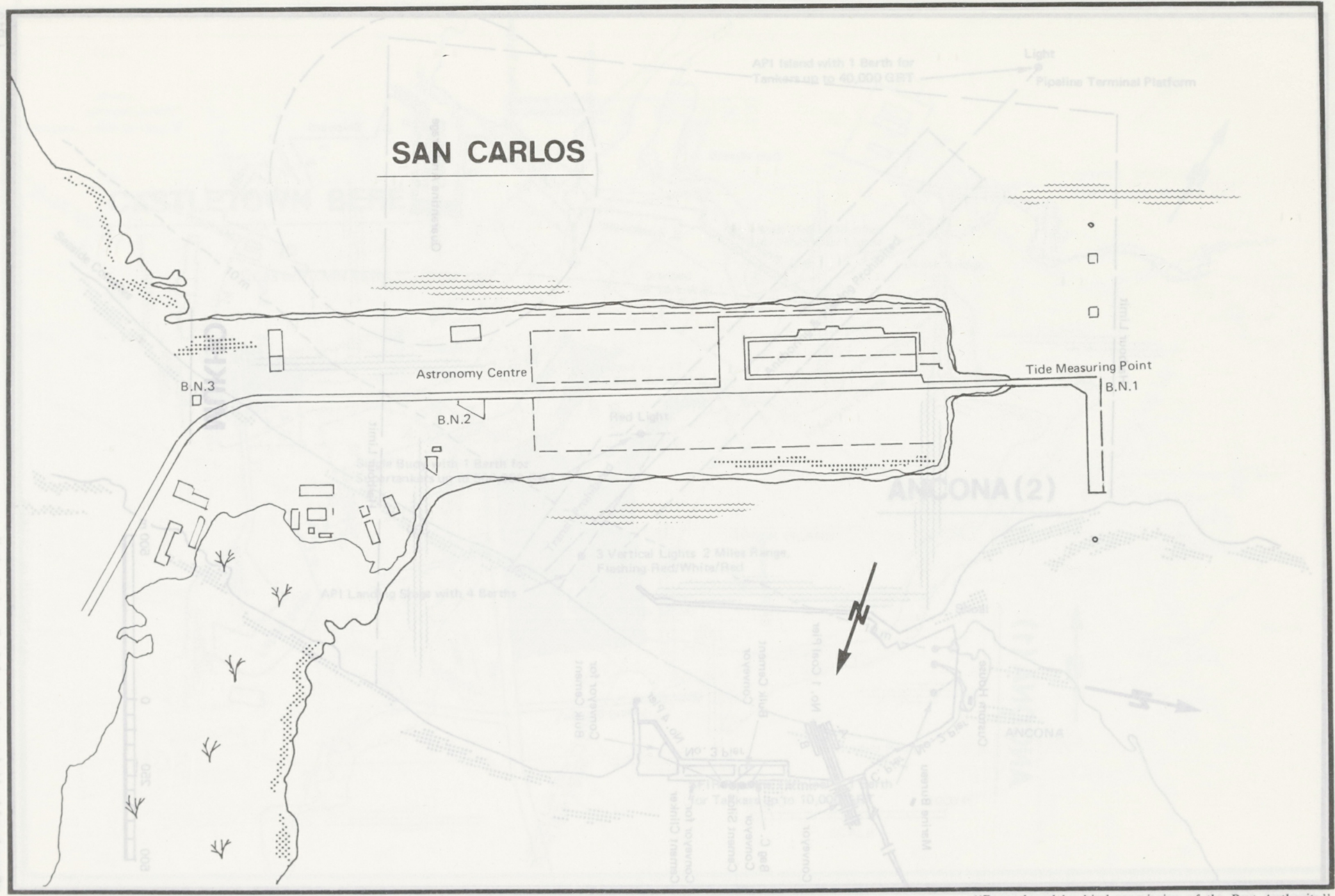




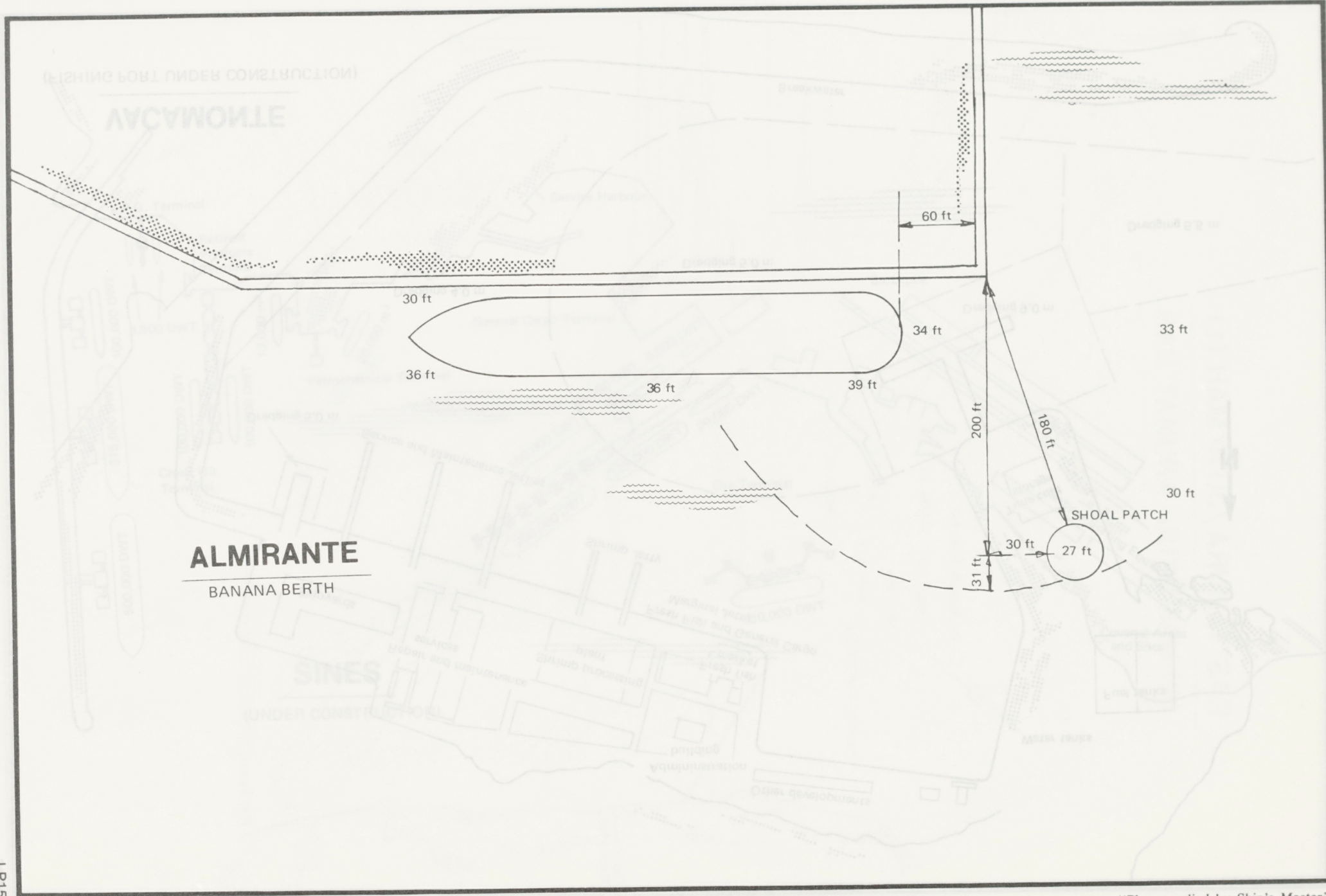










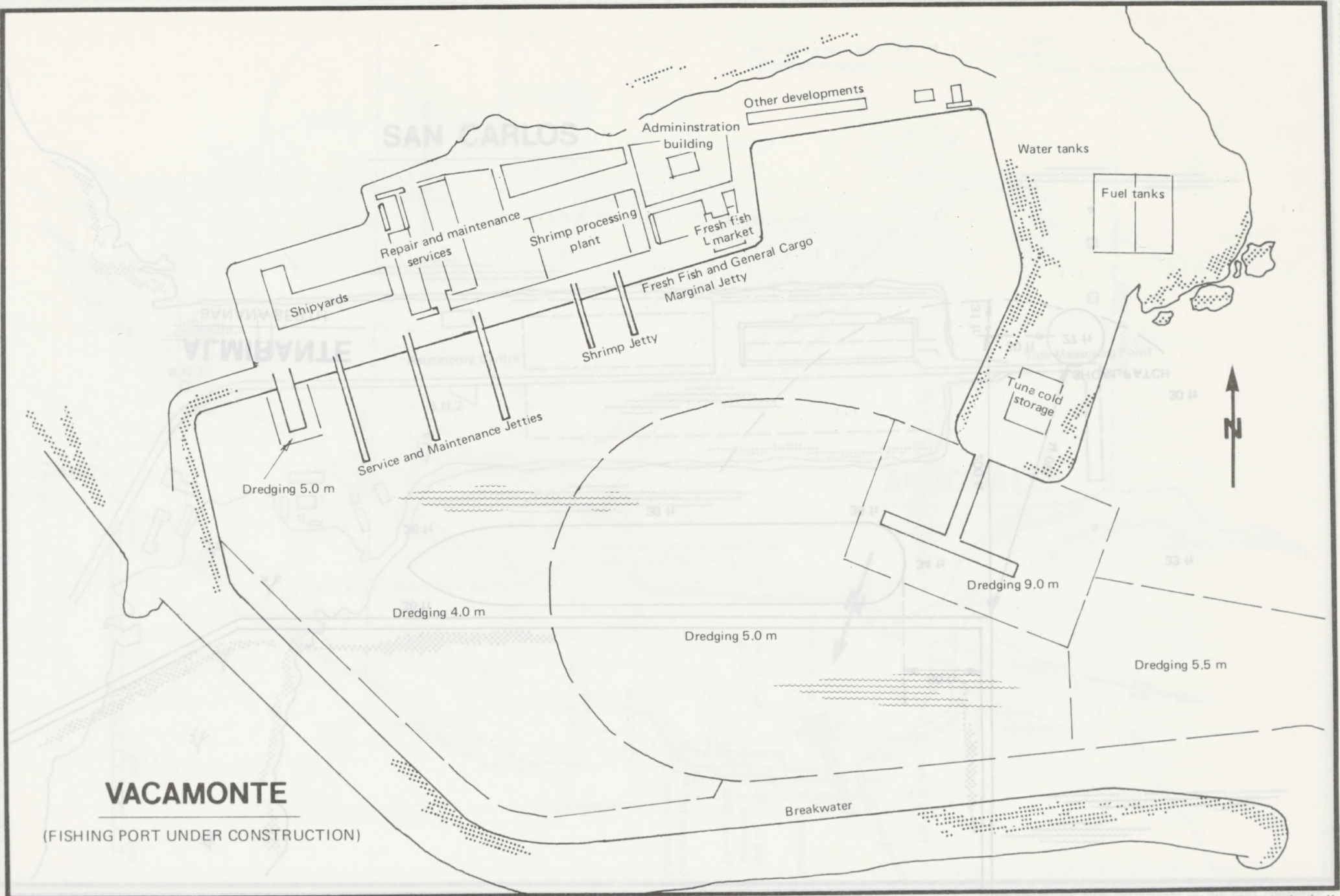


**ALMIRANTE**  
BANANA BERTH

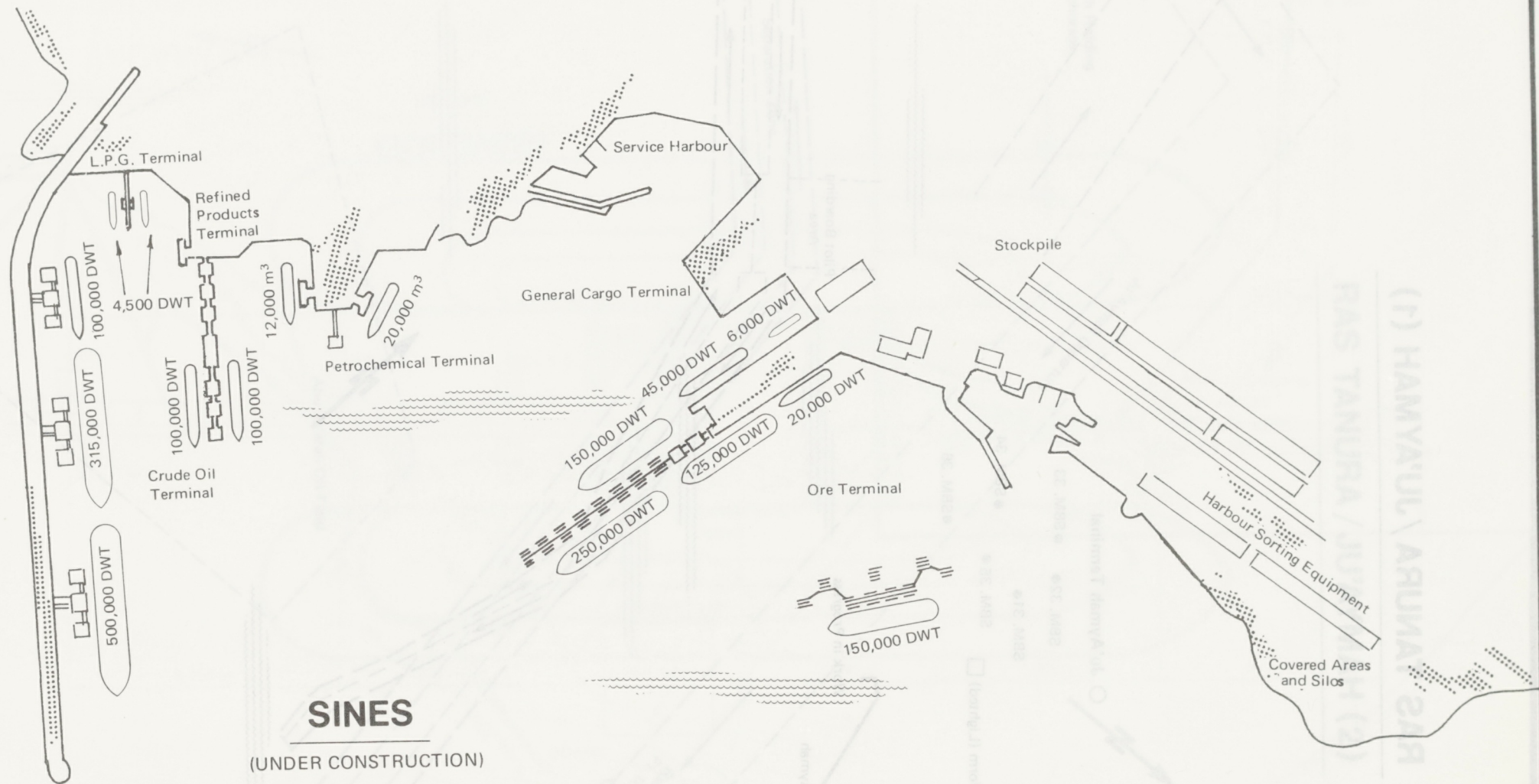
SHOAL PATCH

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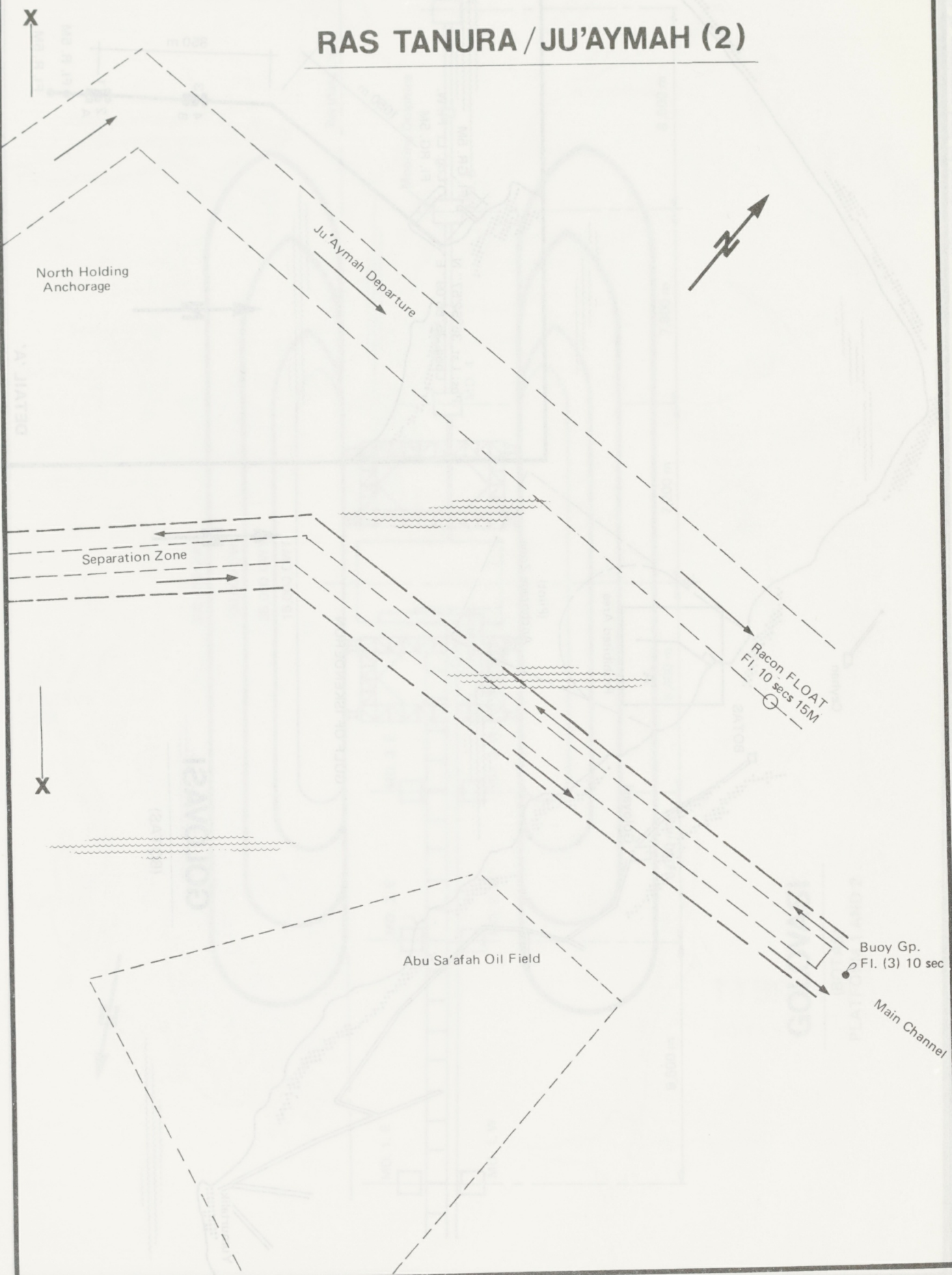




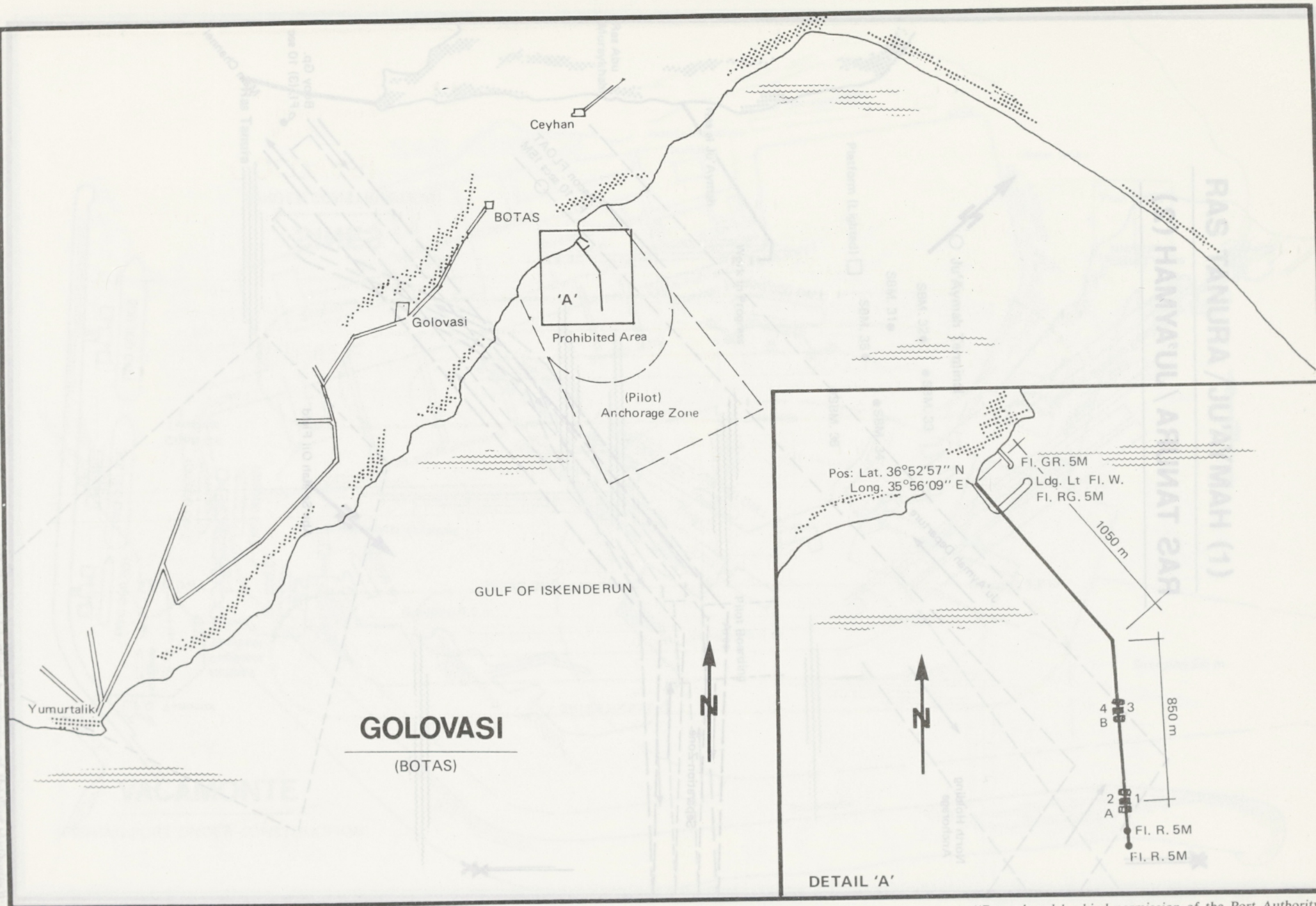




# RAS TANURA / JU'AYMAH (2)

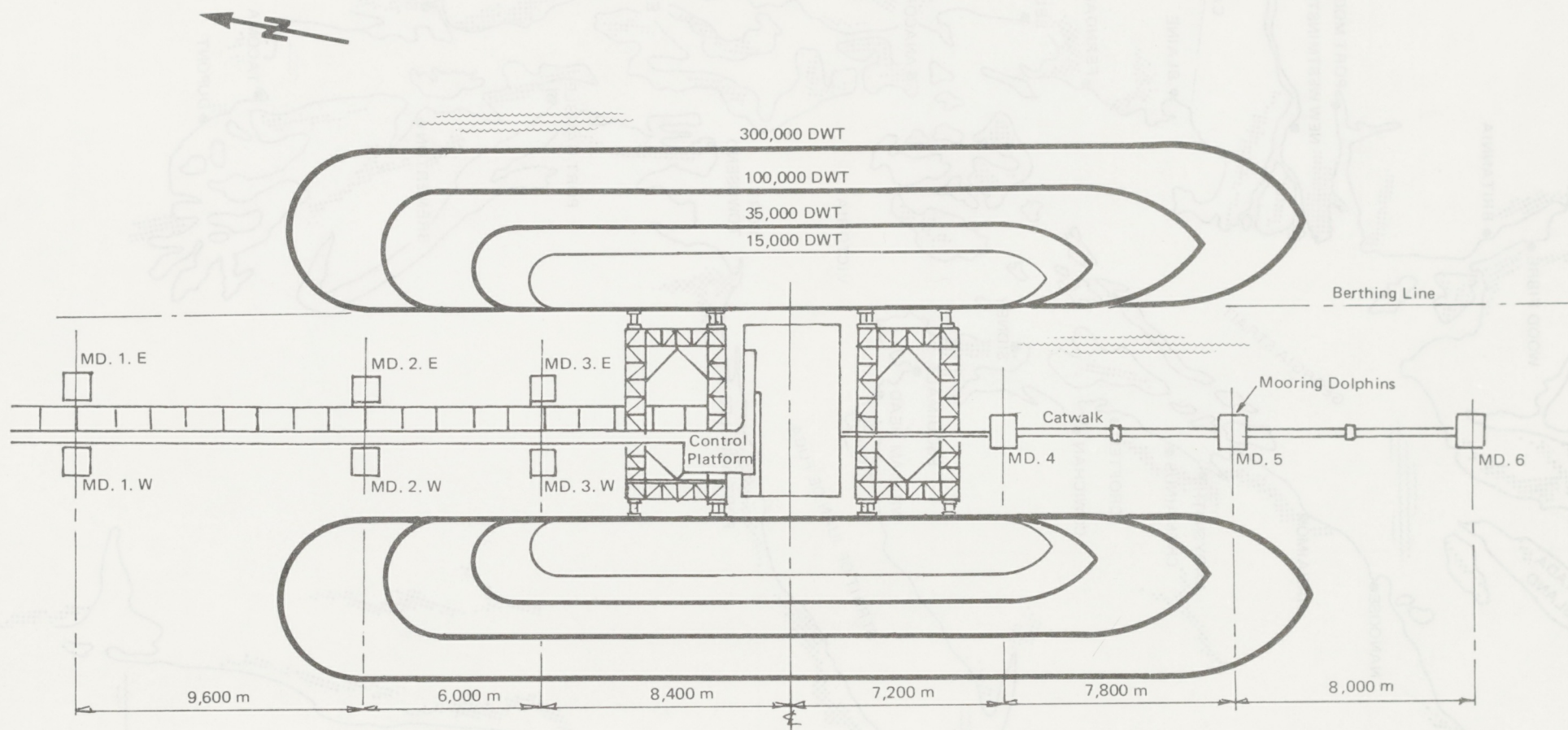






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## GOLOVASI

(BOTAS)  
PLATFORM 1 AND 2



